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ABSTRACT

The intent of the second-year project was to (1) provide inservice training in competencies needed by vocational teachers to teach special needs students, (2) field test teachers' modules developed by the University of Pittsburgh, (3) establish the need and mode of delivery of vocational special needs inservice, and (4) develop a system of delivery of special needs inservice teacher education. Two courses and several inservice meetings were presented. Thirty inservice teachers participated in the courses, and approximately 110 attended the conferences. A special needs inservice assessment survey was conducted among 2,209 vocational educators and support personnel in the Centre Region. Over 45% responded and indicated relative importance of special needs education issues and relative need for inservice activity. Identification of student learning and students' work attitudes were ranked as 1 and 2 in importance of professional tasks regarding the education of special needs learners. The needs for inservice programs for identifying students' learning difficulties and developing students' work attitudes were ranked highest. (Appendixes, amounting to approximately three-fourths of the report, include project materials, learning modules, evaluation forms, and the questionnaire.) (ILB)

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FINAL REPORT

ASSESSING AND MEETING THE IN-SERVICE STAFF DEVELOPMENT NEEDS OF VOCATIONAL EDUCATORS SERVING SPECIAL NEEDS LEARNERS

VOCATIONAL – TECHNICAL EDUCATION **Research Report**

Volume 17, Number 25

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Project Number

94-9003

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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ABSTRACT

Introduction

The subject of this report was the second-year continuation of a project "to facilitate the implementation of the mainstreaming special needs students in regular, on-going vocational programs" (Welch and Cooke, 1978, p. vi). The intent of the second-year project was to: (1) provide in-service training in competencies needed by vocational teachers to teach special needs students; (2) field-test teachers modules developed by the University of Pittsburgh; (3) establish the need and mode of delivery of vocational special needs in-service; (4) develop a system of delivery of special needs in-service teacher education.

Objectives

1. To conduct a comprehensive assessment of the in-service staff development needs of personnel in the 22 area vocational-technical schools in Central Pennsylvania.
2. To develop and deliver intensive special needs in-service and technical assistance programs for approximately three (3) area vocational-technical schools.
3. To further test and refine the University of Pittsburgh modules as a part of each in-service program.
4. To formulate a system for delivering needs assessment, in-service instruction, and technical assistance to individual area vocational-technical schools.

Procedures

Two University courses were conducted for 31 in-service vocational teachers. An instructional modifications independent

study course was offered, utilizing an adaptation of the third and fourth Pittsburgh modules. Two sections of a vocational reading course were offered in response to requests by participants of project in-service activities. Four in-service training sessions were offered and conducted at three Central Pennsylvania locations accommodating five area Vocational-Technical Schools. A special needs in-service assessment survey was administered to 2209 Centre Region vocational teachers and support personnel. Each of the project procedures was evaluated by the participants and an external evaluator.

Results

The in-service program activities concluded that procedural information and resources for specific special needs cases were appropriate and well-received topics. Because of non-involvement in identification, assessment, and subsequent development of individualized planning, the vocational teachers were not receptive to program content stressing preparation of competency in these areas. Reading and mathematics deficiencies of the students and intervention strategies to overcome these deficiencies were consistently cited as important and desired in-service activities.

The needs assessment survey was participated in by approximately 45% of the vocational teachers and support personnel in the Centre Region of Pennsylvania. It rated the importance of special needs topics and interest in in-service activities to accommodate those topics. The survey yielded the information necessary to develop a variety of in-service programs to meet the needs of teachers not already addressed in the past two years of continuing efforts in that regard.

The key constraint to in-service special needs efforts was identified as non-involvement in the Individualized Education Plan (IEP) developmental process. The manifestation of that non-involvement was found in an alienation of vocational teachers in regards to special needs in-service programs.

ACKNOWLEDGEMENTS

Many people, not expressly identified as part of the project, have served willingly in the dispatch of its objectives. Appreciation is expressed to Mr. Wayne Grubb, Consultant for Disadvantaged and Handicapped, Bureau of Vocational Education, Pennsylvania Department of Education, for his support and procedural advice regarding the project.

The support, guidance, and timely suggestions received from Drs. Robert Andreyka and Fred Welch were particularly appreciated, as were the helpful suggestions and unselfish devotion of time by Dr. Jerry Wircenski to requests for assistance. The project would have floundered had it not been for their willingness to assist.

Although Jeannine Subisak was project associate and greatly responsible for the efforts of the past year, it should be noted that all the statistics generated by the needs assessment survey were the product of her endeavor. Her conscientious enthusiasm for computerized statistical measurement is greatly appreciated.

Dr. L. Allen Phelps, original director of the project, is recognized for relevant counsel in the direction of the project and provision for ease of transition from one director to another. Certainly the project would not have been undertaken had he not proposed it and structured the important objectives it has sought to accomplish.

Appreciation is expressed to Mrs. Laura Frye for typing and proofreading virtually every piece of literature which went into the program of activities and courses making up the project and for her careful attention to the typing and proofreading of the final report. Willingly backing up Mrs. Frye's work was the secretarial support of Rosann Moore, Sharon Brode, and Hallye Bathurst. Budget secretary, Ms. Jan Drew was instrumental in ascertaining that expenditures were both appropriate and properly identified. Division secretary, Mrs. Edie Johnson, is acknowledged for her guidance through the maze of bureaucratic necessity and expediting coordinating efforts with the Division of Occupational and Vocational Studies.

The activity which is the subject of this report was supported in whole or in part by the U. S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

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CHAPTER I

INTRODUCTION

The project reported on in this Final Report was the continuation of a 1977-78 project entitled, "Providing Vocational Teachers In Central Pennsylvania With The Needed Competencies To Teach Special Needs Students In Their Present Vocational Programs" (Welch and Cooke, 1978). The current project was developed in response to the recommendations of the Welch and Cooke project, which specifically dealt with a set of Special Needs/ Instructional Modules, prepared at The University of Pittsburgh. According to that report:

> Specifically needing to be accomplished are the following:
>
> 1. Further editing of all modules to eliminate errors and to improve readability.
> 2. Revision of modules by condensing and digesting some material.
> 3. Perform an item analysis of pre/posttest items and revise these tests according to the analysis results.
> 4. Prepare pre/posttests for modules not now having them and perform an item analysis for each test.
> 5. Consider including mini pre/posttests for each section.
> 6. Improve the instructions for taking pre/posttests and include a grading method which compensates for guessing.
> 7. Title the module series.
> 8. Include a preface to the series giving an overview of the modules which includes goals.
>
> It appears that there is a definite need to continue this project, to further assess the needs of in-service teachers, and to continue field-testing and revision of the modules.

> It is strongly recommended that such activity continue. For the concept of mainstreaming to have broad implementation, teachers must be given increased opportunities to prepare for effectively meeting the educational needs of special needs learners. (pp. 32-33)

Based upon those recommendations and continued experience with addressing the issues emerging from P.L. 93-112, Section 504, as amended by 93-516, P.L. 94-142, and P.L. 94-482, the 1978-79 project sought to facilitate:

> Determine the type and extent of in-service and technical assistance needed by AVTS staffs in the central region.
>
> Deliver the appropriate in-service staff development and technical assistance considered essential by the AVTS staffs.
>
> Monitor and evaluate program effectiveness during and following the staff development and technical assistance activities. (Phelps, Note 1)

Specific procedures for meeting the objectives of the project were proposed. They included:

1. Design needs assessment surveys to be distributed to a representative sample of vocational teachers, support personnel, counselors, and AVTS directors throughout the central region.
2. Conduct the needs assessment survey.
3. Compile and analyze the survey results.
4. From the survey results, identify approximately three (3) area vocational-technical schools desiring to receive intensive in-service and technical assistance during the 1978-79 school year.
5. Meet with the directors of each AVTS to develop an in-service and technical assistance plan.
6. Identify the technical assistance, resource information, and in-service expertise requested in each plan (e.g., in-service materials, exemplary program models, short-term workshops, on-site consultants, etc.).

7. Deliver the requested in-service programs in an appropriate mode (e.g., continuing education course, workshop, etc.).

8. Deliver the appropriate technical assistance. An amount of $300/AVTS is requested in the budget for purchase of specific materials and/or services requested in the In-service and Technical Assistance Plan. The expenditures will be approved by the Bureau of Vocational Education prior to purchase.

9. In June, 1979, evaluate the local needs assessment, in-service, and technical assistance activities at each AVTS through the use of a three-person external evaluation team. A descriptive evaluation report will be prepared for each AVTS by the team.

10. The University of Pittsburgh special needs modules will be introduced at each AVTS and multiple copies made available. The modules will also be incorporated in in-service training sessions when appropriate. Formative evaluation data will be collected from those individuals using the modules. These data will be summarized and shared with the writers and users of the University of Pittsburgh modules. A similar field arrangement will be established for the disadvantaged materials being developed in Dr. Wircenski's project at The Pennsylvania State University.

11. The following reports will be developed from the project:

    A proposed system for needs assessment, in-service training, and technical assistance.

    A report describing the in-service needs of vocational education personnel in the central region regarding serving special needs learners.

    Individual reports describing the outcomes of the project activities at each AVTS prepared by the evaluation team.

    Brief formative evaluation reports on the University of Pittsburgh modules.

12. The second-year continuation phase of the project will involve further pilot testing and refinement of the proposed system for needs assessment, in-service training, and technical assistance. Efforts to establish similar systems in each of the teacher education centers throughout the state will be initiated. (Phelps, Note 1)

CHAPTER II

REVIEW OF NEEDS ASSESSMENT LITERATURE

A succession of legislation has generated the need for in-service teacher education directed at teaching competencies for the vocational education of special needs learners. Since 1975, general and special education have been directly involved in strategies to ascertain that teachers are prepared to educate special needs students as defined by section 504, P.L. 93-516 and subsequently, 94-142. It was not until 1976 that P.L. 94-482 confirmed that vocational education would be expected to be in compliance with provisions for handicapped students and made specific provisions for disadvantaged learners. And, in 1977, the procedural regulations regarding P.L. 94-482 described the terms of compliance.

Central to the issue of the education of handicapped individuals has been the placement of students in a least restrictive environment. Mainstreaming, as this placement has been entitled, provides for handicapped students to be placed in a regular classroom as the least restrictive option for student placement. Other student learning environment options exist, such as placement in a special class within a "regular" school or in a special class in a special school, etc. However, the placement in a "regular" class, "regular" school, is considered least restrictive. The selection of that option is the basis for in-service teacher education to provide teacher competencies necessary for education of handicapped individuals in the regular classroom.

Key to the appropriate educational service for handicapped individuals has been the development of a prescriptive device, the Individualized Education Plan (IEP). P.L. 94-142 provided for the IEP in 1975, but the legislation did not require involvement in the IEP developmental process by vocational educators. P.L. 94-482 specified that vocational education programs for handicapped individuals were to be developed in conformity with the IEP's of special needs students, but in terms of applied conformity, not involvement. The IEP, although the pivotal device of effective mainstreaming and crucial to the quality of the program, arrives at the hands of the vocational educator as a directive from general and special education personnel.

The IEP is a formal device for implementing individualized instruction for handicapped individuals. Vocational educators are cognizant of the value of individualization, for the concept has long been a part of vocational teacher education. The vocational teacher cannot, however, readily identify with the IEP because it is a specific prescription plan developed elsewhere (Thornton, Note 2). This lack of procedural involvement has compounded the problem of in-service teacher education regarding competencies required to provide adequate vocational education programs for students with special needs.

The period from the 1977 regulations regarding P.L. 94-482 to the present, although spanning only about two years, has been spent in speculation about how mainstreaming special needs students and providing for IEP's would affect the traditional practices of vocational education. The project, subject of this report, was designed to provide special needs in-service activities and conduct a needs assessment survey to assess teacher and support personnel perceptions of in-service teacher education requirements.

Underlying the determination of needs of vocational teachers for special needs in-service activities is the assumption that vocational teachers are somehow involved in the development of IEP's. The purpose, therefore of needs assessment data collection has been to ascertain how best to teach competencies for IEP generation.

The University of Arkansas, Division of Vocational, Technical and Adult Education surveyed vocational teachers to determine the importance of 42 selected tasks and the confidence of teachers in the performance of those tasks (Yung, 1978). One such task elicited evaluation of the necessity to "individualize course of study and build individualized education programs (IEP's) to fit special needs students" (p.30). Components of the IEP developmental process were contained in 12 of the remaining 41 tasks.

A "Special Needs Assessment Project" conducted in Iowa (Greenwood and Morley, 1978) sought to determine a formula for financial and human resource allocation to programs serving special needs learners. Program information, demographic data, and enrollment figures preceded a section calling for the identification of problem areas in the education of handicapped and disadvantaged students. Information fundamental to the IEP process was sought, but not specifically identified as IEP problem areas. Individualized instruction, program flexibility, planning time, and teacher training regarding techniques of recognizing individual differences were mentioned as tasks. None, however, were identified as vocational education IEP components.

Iowa project investigators stated:

> [T]eachers ignore the plight of special needs students on the rationale that special education will take care of the problem. Typically, special educators do not facilitate the input of vocational educators . . . Vocational are not helped to better understand the special needs students, nor are they involved in helping solve their problems." (pp. 10-11)

A North Dakota survey (Crawford and Cilz, 1979) seeking to determine in-service training requirements of vocational special needs teacher education contained no IEP items. Seven of 20 needs included contained elements of the IEP developmental process. One hundred and forty-three competencies listed in a Minnesota needs assessment survey (University of Minnesota, Note 3) contained only 11 IEP competencies despite the central role of Individualized Education Plans in the education of handicapped individuals.

Foley and Holland (1978) analyzed the annual plans of 12 states regarding their IEP monitoring and compliance procedures. The 12 states included: Arkansas, Connecticut, Georgia, Louisiana, Maine, Maryland, Massachusetts, Missouri, North Carolina, Oklahoma, South Carolina, and Tennessee. Each state plan contained the identity of the program area to be monitored in terms of components, but there was no provision for monitoring vocational education IEP development in the procedures.

A review of the evaluation and monitoring systems in the States further demonstrates the non-involvement status of vocational education in the IEP process. Vocational education is often cited as an opportunity or referral resource for the IEP prescription. Evidence was not found that vocational education shares an integral role in the development of IEP's with those delivery systems whose participation is legislated.

With such obvious exclusion of vocational education in developing Individualized Education Plans for handicapped students, in-service training in vocational education of those students is relegated to mostly theoretical issues. It is true that vocational educators can develop a unique plan for the handicapped individuals referred to their shops and laboratories. And, it follows that such a plan can be prescriptive and include components similar to the IEP.

Training for vocational teachers becomes a theoretical issue of "what to do when a handicapped individual arrives, IEP in hand, expecting an appropriate education." The situation further alienates vocational education from a reciprocating relationship with other systems of delivery. The practice compounds the elitist separation of systems. Vocational education thus becomes a point of referral rather than a partner in the planning. In-service training of vocational teachers in that context must necessarily focus on procedures for education of handicapped individuals in the isolation of a referral system.

The problem lies in the practice of prescribing vocational training by practitioners in other delivery systems who have inadequate understanding of the make-up of a vocational program. Vocational education, regardless of the content occupational specialty, is a complex educational system in which there exists a delicate balance of cognitive, affective and psychomotor domains. In order for the balance to be maintained, referral of students must be based upon a clear understanding of not only the rigors of the content occupational specialty, but the necessary learning processes which are required to achieve success in a vocational program. Vocational educators are sensitive to both the rigors of the occupational specialty and the precise learning processes involved. That sensitivity is not presently being reflected in the practice of unilateral referral, as opposed to consultation in the IEP developemnt.

The problem could be solved by legislative mandate or interagency agreement that vocational educators must be involved in the IEP's developmental process. L. Allen Phelps, director of the Leadership Training Institute Project for the Vocational Education of Handicapped Individuals (1979) stated, "If handicapped students are enrolled in vocational education, it is vital that vocational educators be integrally involved in planning, writing, and implementing the IEP."

CHAPTER III

PROCEDURES

Introduction

The project was divided into two distinct, but related activities: (1) delivery of in-service training in the vocational education of handicapped individuals; (2) administration of a needs assessment survey to determine teacher perceptions of in-service activities which would meet their needs. Delivery of services has been an ongoing process, not specifically intended to be initiated according to the outcome of the needs survey. The survey was conducted to establish a related, but independent, base of understanding to be combined with other efforts to arrive at a finalized system for in-service delivery. It was realized that the time frame for conducting the survey paralleled that of continued service delivery. Therefore, service delivery continued in that interim.

The first section of this chapter examines the specific activities undertaken in the in-service training of vocational teachers regarding special needs populations. The second section of the chapter examines the needs assessment procedures and resulting data.

Service Delivery Activities

Based upon the Welch and Cooke (1978) findings of the responses by AVTS directors in the Central Region of Pennsylvania to inquiry of need for in-service activities regarding training in the vocational education of special needs students, eight AVTS's were identified for target activities:

Lancaster AVTS at Mount Joy

Lancaster AVTS at Willow Street

Lancaster AVTS at Brownstown

Centre County AVTS

Williamstown AVTS

Bradford County AVTS

Tioga County AVTS

Seneca Highlands AVTS

Lancaster In-Service Day - The first service delivery occurred on November 13, 1979, at a group in-service day for the three Lancaster AVTS's held at Willow Street. Participating in the day-long program were:

L. Jay Thornton, Project Director

Jeannine Fan Subisak, Project Associate

Michael Lynes, Berks County AVTS

The program consisted of the following (See Agenda, Appendix A):

I. Legislative Guidelines
   A. P.L. 94-142, Responsibilities of vocational-technical educators.
   B. P.L. 94-482, Reinforcement of handicapped and provision for disadvantaged.

II. Handicapped and Disadvantaged Definitions (See Appendix B)

III. Identification
   A. Sending school responsibilities.
   B. Vo-tech teacher/administrator responsibilities.

IV. Instructional Planning

A. Theory.

B. Practice, including suggested formats (See Appendix C).

V. Instructional Modification

A. Samples of exemplary programs.

B. Case study discussion (See Appendix D).

VI. Implementation, discussion groups (See Appendix E).

VII. Motivation - Film, "A Day In The Life of Bonnie Consolo."

VIII. Berks Exemplary Program

IX. Informal Reading Problem Survey

X. Participant Evaluation (See Appendix F)

(NOTE: Materials distributed to the participants of this workshop were adapted from materials distributed at the National Training Project for the Development and Implementation of Vocational Teacher Education Programs for Working with the Handicapped, University of Nebraska, 1978; and,
Wentling, T. L.; Russo, R. P.; Jensen, T. A.; Peak, C. M.; and Schreck, G. R. Special Topics of Instruction: Serving Students with Special Needs. Instructors' Guide for Vo Ed 5100, University of Minnesota, 1977.)

Workshop Summary Legislation. A series of transparencies were utilized to provide information to the participants regarding the legislative provisions for special needs students (See figures 1, 2, and 3):

Based upon the reaction of the participants, it was clear that, although they were cognizant that legislation existed, they were not specifically knowledgeable about its contents. Additionally, the participants vocalized a lack of interest in a program designed to identify the contents of the legislation. It was expressly stated to the presenter that the legislation was

FIGURE 1

P.L. 93-112

REHABILITATION ACT OF 1973 (504)

P.L. 93-516

MANDATES EQUAL OPPORTUNITY FOR QUALIFIED HANDICAPPED INDIVIDUALS IN EDUCATION AND ACTIVITIES OF ALL RECIPIENTS OF FEDERAL FINANCIAL ASSISTANCE.

WHO?

NON-AMBULATORY DISABILITIES (CONFINED)
SEMI-AMBULATORY DISABILITIES (W/ASSISTANCE)
COORDINATION DISABILITIES
SIGHT DISABILITIES
HEARING DISABILITIES
SPEECH DISABILITIES
LEARNING DISABILITIES
MENTAL AND PSYCHOLOGICAL DISORDERS

WHAT?

GUARANTEE OF ACCESS
CALLED - BARRIER FREE ENVIRONMENT

FIGURE 2

P.L. 94-142

EDUCATION FOR ALL HANDICAPPED CHILDREN ACT

MANDATES A FREE APPROPRIATE EDUCATION FOR ALL HANDICAPPED CHILDREN WITHIN THE LEAST RESTRICTIVE ENVIRONMENT.

COMMISSIONER OF EDUCATION MAY WITHOLD FUNDS

INDIVIDUALIZED EDUCATION PROGRAM PLAN

LEAST RESTRICTIVE ENVIRONMENT
MAINSTREAMING

The term handicapped means persons who are:

1. Mentally retarded
2. Hard of hearing
3. Deaf
4. Speech impaired
5. Visually handicapped
6. Seriously emotionally disturbed
7. Orthopedically impaired
8. Health impaired persons
9. Persons with specific learning disabilities

AND WHO, BECAUSE OF THEIR HANDICAPPED CONDITION:

FIGURE 2 (CONTINUED)

1. REQUIRE SPECIAL EDUCATION AND RELATED SERVICES, AND
2. CANNOT SUCCEED IN THE REGULAR VOCATIONAL EDUCATION PROGRAM WITHOUT SPECIAL EDUCATIONAL ASSISTANCE, OR
3. REQUIRE A MODIFIED VOCATIONAL EDUCATION PROGRAM.

FIGURE 3

P.L. 94-482

EDUCATION AMENDMENTS OF 1976

INDICATES THAT VOCATIONAL TRAINING SHOULD BE MADE ACCESSIBLE TO PERSONS OF ALL AGES IN ALL COMMUNITIES INCLUDING THOSE WHO ARE DISADVANTAGED AND HANDICAPPED.

REINFORCES MAINSTREAMING
IDENTIFIES THE DISADVANTAGED
FUNDING PROVISION -
20% DISADVANTAGED
10% HANDICAPPED
SET ASIDE FUNDS

CRITERIA - DISADVANTAGED

ACADEMIC DISADVANTAGES MEANS THAT A PERSON:

1. LACKS READING AND WRITING SKILLS
2. LACKS MATHEMATICAL SKILLS
3. PERFORMS BELOW GRADE LEVEL
   (THE CRITERION FOR A DISADVANTAGE IN ONE OF THESE AREAS IS USUALLY TWO GRADES BELOW GRADE PLACEMENT.)

FIGURE 3 (CONTINUED)

ECONOMIC DISADVANTAGE MEANS:

1. FAMILY INCOME IS AT OR BELOW NATIONAL POVERTY LEVEL
2. PARTICIPANT OR PARENT(S) OR GUARDIAN OF THE PARTICIPANT IS UNEMPLOYED
3. PARTICIPANT OR PARENT OF PARTICIPANT IS RECEIVING PUBLIC ASSISTANCE; OR THE PARTICIPANT IS INSTITUTIONALIZED OR UNDER STATE GUARDIANSHIP (SECTION 104.804, APRIL 7, 1977)

LIMITED ENGLISH-SPEAKING ABILITY REFERS TO:

A. INDIVIDUALS WHO WERE NOT BORN IN THE UNITED STATES OR WHOSE NATIVE TONGUE IS A LANGUAGE OTHER THAN ENGLISH, AND

B. INDIVIDUALS WHO CAME FROM ENVIRONMENTS WHERE A LANGUAGE OTHER THAN ENGLISH IS DOMINANT, AND BY REASON THEREOF, HAVE DIFFICULTIES SPEAKING AND UNDERSTANDING INSTRUCTION IN THE ENGLISH LANGUAGE.

of questionable relevance to them, because it did not contain procedural information or guidelines.

Handicapped and Disadvantaged Definitions (See Appendix B). The participants expressed a mixed reaction to this segment of the workshop. On the one hand they were interested in the clarification of what constituted special needs identification. Accordingly, they expressed interest in the definitions. On the other hand, the participants vocalized concern that they were not trained in most of the specialized areas of need manifested by special needs students and, although the definitions were helpful, they did not prescribe treatment.

Identification, Planning, Modification, and Implementation (See Appendices C through E). The balance of the program contained implicit information on the Vocational Education related procedures for educating mainstream students. There was a significantly greater interest in these segments manifested by the participants. Once again, however, during the discussions relating to planning, concern was expressed that special needs students are referred to vocational programs without planning involvement of educators. It was less than delicately described as a "dumping" process by academic delivery systems.

Informal Reading Survey. During the program the issue of student reading deficiency was mentioned. It was the consensus that, although a general problem, special needs students were particularly disadvantaged by reading problems. The participants were surveyed to determine their perception of the nature of the problem (See Table 1).

The response to the informal survey demonstrates the existence of a problem with reading deficiency and an interest in solution. However, it also points out that identification and treatment have not previously been a part of their vocational programs.

Evaluation (See Appendix F). The participant evaluation results were submitted to the external evaluator and are contained in that report. The subjective comments are listed below:

1. To what extent did the speakers give you information which will help you in your work?

    "Made me more aware of what to look for."

    "[Portions] . . . too theoretical . . ."

    "Heard it all before."

    "Very good. Very interesting."

    "Too theoretical . . . What about the child as a person who wants to be accepted . . .?"

    "Unfortunately, not enough time to be specific."

    "I am now more open to special needs students."

    "Must prepare home schools and administration before teachers."

    "Need more detail."

2. The visual aids were:

    "Bonnie Consolo film excellent."

    "Liked the video tape."

    "Not realistic - too good to be true."

    "Movie was effective."

Table 1

RESPONSES OF LANCASTER AVTS PERSONNEL
TO INFORMAL READING SURVEY

QUESTION	YES	NO	NO ANSWER
1. Are students in your program deficient in reading?	27	7	1
2. Do you receive a report of their standardized reading test scores?	9	22	4
3. Do you utilize teacher-prepared tests to establish student reading ability?	11	23	1
4. Do you presently use reading intervention strategies in cases in which reading is a problem?	2	31	2
5. Would a specialized college course in reading intervention strategies be helpful to you?	32	2	1

3. The handout material was:

   "Will be very useful."

   "Too many."

   "Needed more coverage in presentation."

   "Must further read and study."

   "Will act as reinforcement."

   "Would be more useful if less given."

4. Interaction between speaker and audience:

   "Very good . . . had a lot of interaction."

   "Very good."

   "Speakers tended to speak around the questions of the audience."

   "Too much information in a short period of time."

   "Lecture type did not allow for interaction."

5. Suggestions for next workshop?

   "Instructors from all delivery systems should be present."

   "Discuss organization of classroom materials."

   "Explore individual handicaps."

   "Extension of this program."

   "More in-depth discussion of special needs categories."

   "Behavioral problems program."

   "More realistic situations presented."

   "More on IEP."

   "Small group format."

   "Reading and Math interaction."

   "Role of the intermediate unit."

6. Your position in education:

Classroom/shop teacher	34
Administrator	(Did not perform evaluation)
Counselor	1
Other	Nurse

Centre County AVTS In-Service Day - February 26, 1979, a one-day in-service workshop was presented to the faculty at Pleasant Gap, Pennsylvania. This program was developed and presented by the project director. The presentation consisted of the following:

I. Introduction, bias and attitudinal consideration regarding special needs students.

II. Review of legislation (See figures 1-3).

III. Conceptual definitions.

A. Mainstreaming, least restrictive environment

B. Individual Education Plan (IEP)

C. Review of the Issues (See Appendix K)

IV. Attitude adjustment.

A. Group discussion

B. Video tape, "A Day In The Life of Bonnie Consolo."

V. Identification of disadvantaged individuals (See Appendix B).

VI. Resource development.

A. Course offerings [Penn State 413v, Special Needs (See Appendix G) and 497v, Special Topics]

B. Procedural view of obtaining assistance from support personnel.

VII. Informal Reading Problem Survey of participating teachers.

VIII. Cloze procedure for evaluation of and intervention in cases of reading deficiency (See Appendix H).

IX. Participant Evaluation (See Appendix F).

Workshop Summary. The presentation at the Centre County AVTS contained material similar to that at the Lancaster In-service Day, November 13, 1978. Some refinements had been made, but the content was essentially the same. It was felt that the program, being the first meeting with this faculty, should provide an overview of the legislation, conceptual definitions, and an attitude component. In addition, because of the reactions by Lancaster teachers, college course resources were identified (Appendix G) and a brief reading intervention strategy included.

The reactions of the Centre County faculty were similar to those experienced by the presenter in Lancaster. Participants expressed concern over non-involvement in the planning process for special needs students. Accordingly, the participants also stated objection to referral of special needs students without an appreciation by the sending source of the complexities of vocational programs. Once again, the expression "dumping" surfaced. A reading survey, identical to that administered in Lancaster, was performed at Centre County. The results were as shown in Table 2.

The responses to the informal survey clearly indicated existence of a reading problem for students in Centre County AVTS. It also demonstrated that standard diagnostic scores were either unavailable or not requested by the teachers. Combined with a mixed response (8 - yes; 15 - no) to the use of a teacher-prepared test, it is clear

Table 2

RESPONSES OF CENTRE COUNTY AVTS PERSONNEL TO INFORMAL READING SURVEY

QUESTION	YES	NO	NO ANSWER
1. Are students in your program deficient in reading?	22	1	--
2. Do you receive a report of their standardized reading test scores?	1*	22	--
3. Do you utilize teacher-prepared tests to establish student reading ability?	8	15	--
4. Do you presently use reading intervention strategies in cases in which reading is a problem?	13	10**	--
5. Would a specialized college course in Reading Intervention Strategies be helpful to you?	15	8	--

* Upon request only
** Reading should have been accomplished at the elementary level

that identification of student reading problems has been nearly absent from the vocational curricula.

As a result of the Lancaster experience, a brief reading presentation was prepared for the Centre County AVTS In-service Program. The presentation included discussion of the Cloze Procedure Evaluation Technique, with sample Cloze literature (See Appendix H) and a discussion of reading in vocational education (See Appendix I).

Subsequent to the workshop, each participant received a Cloze procedure kit which contained Cloze instructions and a demonstration transparency (See Appendix J).

Evaluation. The results of participant evaluation of the program were submitted to the external evaluator and are contained in that report. Subjective comments are recorded below:

1. To what extent did the speaker give you information which will help you in your work?

   "The P.L.'s (legislation) were new to me and very informative."

   "My students must be able to read instructions; it's too late after they get here."

   "I'm not sure I know how to put the information to use."

   "I cannot implement the program."

2. Visual aids:

   "Covered material to support lecture."

   "Good to the extent of importance."

3. Handout material:

   No comment.

4. Interaction - Speaker/Audience:

   "No limit on question and answer any time."

   "Had the opportunity to feel free to speak out."

   "Became involved."

5. Suggestions for next workshop:

   "More information; no format change."

   "Same topics with input from home schools and I.U."

   "More on academically deprived."

   "Bring in guidance counselors."

   "Funding - what is available and how to apply."

   "Follow-up of this workshop."

   "Include individual instruction techniques."

   "Include I.E.P. development."

   "Include discipline."

   "Bring in people from sending schools."

6. Your position in education:

Classroom/Shop teacher	24
Administrator	1
Counselor	1
Other	Nurse

Modifying and Adapting Instructions for Special Needs Learners.

The first three Pittsburgh modules, Introduction to Mainstreaming, Legislation and Litigation, and Modifying Instructional Objectives were field-tested and reported upon in the Welch-Cooke Final Report. The fourth module was not tested because it had been received late in the project year.

Welch and Cooke (1978, p. 29) concluded: "The modules appear to be designed for classroom use. However, they could easily be used for self-directed study if appropriate directions and guidelines would be included in the format." It was decided that the best use for these modules would be in a program in which they had been adapted for independent study.

In order to field-test the fourth module, based upon the above consideration, the third and fourth modules were combined and modified to provide an undergraduate course offering for in-service but non-certified teachers. The course, entitled "Modifying and Adapting Instruction for Special Needs Learners (VI ED 296av)" was offered by the Department of Vocational Industrial Education, The Pennsylvania State University, Spring term, 1979 (See Appendix L). It was offered as an independent study course, open to teachers at Bradford and Tioga County AVTS's and Seneca Highlands AVTS. Eleven vocational-technical teachers from those facilities participated.

The objectives and format were presented as follows:

1. Student will identify behavioral objectives appropriate for the special needs learner.
2. Students will identify three different types of assessment: Pre-vocational, Teacher-made pretests, On-going Teacher-made tests.
3. Student will be able to develop lesson plans for units of his/her instruction, identifying the provisions for more than one cognitive level of learning in the same class.
4. Student will be able to design information sheets appropriate for his/her unit of instruction for the student with a reading level below grade level.

5. Same as above, except for student with math deficiency.
6. Student will be able to set up an instructional feedback system with integrated special needs provisions.
7. Student will demonstrate alternative methods of delivery, including purpose, projected use, outcomes and pro/cons.
8. Student will design an instructional recording system.

The format for this course will be primarily independent study with three scheduled instructor/student group sessions. Individual conferences will be scheduled with the instructor, as required.

The course is designed for practicing teachers who have no background in formal exceptional children coursework. It is structured in a self-paced, competency-based approach. All the materials necessary for successful completion of the course will be supplied by the instructor (except project materials). In addition, further-study bibliographies shall be made available for those students who wish to explore areas beyond those contained in the structured format.

Evaluation. The course evaluation was submitted to the external evaluator and is contained in that report. A summary of the participants' evaluation was prepared by the project staff (See Appendix M).

Reading Sensitivity for Vocational Teachers. During the course of in-service training sessions and meetings with AVTS personnel in the Central Region, it became apparent that student reading deficiency poses a serious problem for vocational teachers. Informal surveys at the in-service sessions demonstrated need for intervention strategies aimed at the amelioration of these problems. Because the Pittsburgh Modules contained reading components, but were limited to assessment and evaluation capabilities, a reading course, designed specifically for vocational teachers was developed and offered by Penn State.

The reading course, "Reading Sensitivity for Vocational Teachers (VI ED 497cv)," developed and taught by the project director, was offered Spring term, 1979, at Capitol Campus, Middletown, and Mount Joy AVTS. Twenty vocational-technical teachers participated in the course. The outline and objectives were as follows:

OBJECTIVES

This instructional program will enable educators, prospective educators, and those serving in or preparing for other leadership positions to:

1. assess his or her ability to provide instruction in vocational reading in the context of both curricular and job-related needs;
2. establish a range of reading achievement levels based upon skills related directly to curricular and job-related vocational literature;
3. determine the readability level of curricular and job-related literature according to readability formulas appropriate for the several varieties of vocational literature;
4. become skilled in the use of diagnostic procedures (e.g., standard diagnostic evaluation and Cloze procedures) which are correlated with pretest achievement levels and literature readability levels;
5. develop curriculum and sensitize existing curriculum with reading intervention strategies;
6. evaluate the impact of those strategies on the (posttest) achievement levels of his/her students.

The instructional program is designed to accommodate the needs of (1) vocational teachers of the disadvantaged whose disadvantage is predicated upon reading deficiency as defined by legislation and (2) vocational teachers of "normal" students experiencing transitory reading difficulty accompanying the introduction to an occupational specialty.

OUTLINE

Assessment of Instructional Skills

- Awareness of the dual nature of reading requirements: curricular and job related
- Personal/Professional comfort with reading
- Attitude toward value in Vo-Ed program
- Awareness of research and development applicable to infusion in existing curriculum

Assessment of Reading Ability (Diagnostic)

- Curricular materials; use thereof
- Job-related materials; use thereof
- Job survival reading
- Reading for lateral employment moves
- Reading for upward mobility

Readability Assessment

- Literature in the curriculum
- Literature required for job performance
- Literature for employment survival
- Lateral career change literature
- Literature for upward mobility

Correlated Diagnostic Procedures

- Standard diagnostic testing
- Cloze procedure

Curriculum Development and Infusion

- Vocabulary, comprehension and rate priorities
- Intervention strategies
- Resource material selection and acquisition

Program Evaluation

- Self-evaluation, instructional
- Self-evaluation, student
- Correlational evaluation, reading ability versus readability

Evaluation. The course evaluation was submitted to the external evaluator and is contained in that report. Participant evaluation was summarized by the project staff (See Appendix N).

Lancaster AVTS, In-Service Day - March 19, 1979, the second Lancaster In-Service Day was presented at the Willow Street AVTS. It was designed to supplement the November program and update the teachers regarding state policies and decisions regarding implementation of P.L. 94-142 and P.L. 94-482. Presented by the project director, the program included the following:

I. Harrisburg, update of policies and decisions regarding the implementation of P.L. 94-142 and P.L. 94-482.
    A. Group discussion by participants.
    B. Questions and answers.
II. Mathematics Intervention Strategies
III. Reading Intervention Strategies
    A. Cloze procedure.
        1. Evaluation
        2. Teaching technique
    B. Fillmore's Case Grammar
IV. Attitude Adjustment - "The Topic of Poverty is Not in Vogue."

Workshop Summary. Following a discussion period of current perceptions about the implementation of P.L. 94-142 and P.L. 94-482, the participants were introduced to a game which was designed to demonstrate transferability of skills among occupational clusters. The outcome of the game, identification of major skill areas of clusters, was then related to the instruction of these skills for special needs students.

One of the problems expressed consistently throughout in-service programs has been that students do not take their studies seriously. This was repeatedly interpreted to mean that they either do not study or study only superficially. "Study in the Combat Zone" (See Appendix P) was a program segment aimed at simulating the study problems of students, particularly disadvantaged students, who often do not have adequate study space. The teachers were required to study systems analysis procedures while the staff provided distractions. Subsequently, the participants were tested for retention of the material studied.

Reading and Math intervention strategies were discussed, using the Cloze procedure as both an evaluation and teaching technique (See Appendix Q). The participants also received information concerning the Reading Sensitivity for Vocational Educators course previously described.

P.L. 95-600, amendment to the Internal Revenue Code, was introduced to the workshop. The provisions for employing "hard-to-employ" persons in exchange for the credits for employees were discussed. The Committee for Economic Development's "Jobs for the Hard To Employ" (See Appendix R) was distributed and discussed.

Evaluation. The participant evaluations were submitted to the external evaluator and are contained in that report. The workshop was responded to less than favorably despite the subsequent enrollment of several participants in the reading course. Subjective evaluation responses are recorded below:

> "Too intelligent type of speaking; more down to earth."
>
> "Discussion is poor method to use."
>
> "Too much on red-tape hang-ups."
>
> "Need more examples of Cloze precedures."

"Much question and answer - best part."

"Instructor told us what he will tell us - but never told us."

Evaluation Survey Question.

6. Your position in education:

Classroom Teacher	29
Administrator	1
Counselor	0
Other	0

Williamsport AVTS (Williamsport Area Community College) In-Service Meeting. April 17, 1979, Project Associate Jeannine Fan Subisak presented an abbreviated special needs in-service program at the regular WAVTS faculty meeting. The presentation included:

I. Identification and assessment procedure.

II. Instructional modification.

III. Student and faculty attitudinal problems:

  A. Discussion.

  B. Synthesis by discussion leader.

IV. Film: "A Day In The Life of Bonnie Consolo."

Evaluation. Each of the activities reported on, with the exception of the Williamsport Meeting, was evaluated by the participants. The Williamsport meeting was part of a faculty meeting and not conducive to the administration of an evaluation instrument regarding the special needs in-service content. In addition to each participant evaluation, an external evaluator was retained who contacted a random sample of the participants to obtain additional evaluative response. The evaluator was supplied with all materials, outlines, objective statements, and participant evaluation reports. The full report of the evaluator is contained in Appendix V.

CHAPTER IV

SPECIAL NEEDS IN-SERVICE ASSESSMENT

Special Needs In-Service Assessment Survey

In an effort to determine the degree of importance and the need for in-service training regarding special needs issues, 2209 surveys were sent to vocational educators and support personnel in the Centre Region of Pennsylvania. Survey participants were determined by inclusion of those secondary vocational educators and support personnel whose names appeared on a list provided by the Pennsylvania Department of Education, dated November 29, 1978. The listing included: (1) Principals and school directors; (2) teachers in all program fields; (3) guidance directors and counselors; (4) co-op personnel.

Instrumentation. The survey questionnaire was developed by the project staff by accumulating published special needs assessment survey questionnaires, then extracting and adapting those questions to the needs of this project. Subsequent to the development of a preliminary instrument, copies of the questionnaire were sent to the faculty members in the Division of Occupational and Vocational Studies, and faculty members of other Penn State colleges, based upon their proximity to the intent of the survey, for their review and recommendations. Copies were also sent to selected individuals at the Bureau of Vocational Education, the Pennsylvania Department of Education. The responses of these instrument reviewers were incorporated into the final survey instrument (See Appendix S). Clearance was also obtained from the committee on Protection of Human Subjects, The Pennsylvania State University (see Appendix T).

Respondents. Response to the survey and attendant follow-up requests (Appendix U) are contained in tables 3-8, which follow:

Table 3

Questionnaire Returns

Total Questionnaires Mailed	2209
First Return	715
Follow-up Return	274
Invalid Return (Retired, Deceased, etc.)	24
Total	1013
Return Percentage	45.85%

Table 4

Sex of Respondents by Group

Status	Administrator		Vocational Teachers		Sp. Ed. Teacher		Vocational Counselor		Home School Counselor		Vocational Coordinator		Other		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Male	93	94.90	358	52.72	8	61.54	41	80.39	32	66.67	40	83.33	7	29.17	579	60.25
Female	4	4.08	321	47.28	5	38.46	10	19.61	16	33.33	8	16.67	17	70.83	381	39.65
Invalid	1	1.02	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	98	100.00	679	100.00	13	100.00	51	100.00	48	100.00	48	100.00	24	100.00	961	100.00

*Other indicates school personnel other than administrator, vocational teacher, counselor, cooperative coordinator. It may include school nurses, general course teachers, etc.

Table 5

Employment Status of Respondents by Group

Status	Administrator		Vocational Teachers		Sp. Ed. Teacher		Vocational Counselor		Home School Counselor		Vocational Coordinator		Other		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Full-time	97	98.98	653	96.88	12	100.00	51	100.00	46	95.83	46	100.00	23	95.83	923	97.38
Part-time	1	1.02	21	3.12	0	-	0	-	2	4.17	0	-	1	4.17	25	2.62
Total	98	100.00	674	100.00	12	100.00	51	100.00	48	100.00	46	100.00	24	100.00	953	100.00

Table 6

Number of Years in Teaching by Group

Group	Years	
	Mean	Standard Deviation
Administrator	18.19	9.03
Vocational Teachers	11.40	7.90
Special Education Teachers	12.08	9.34
Vocational Counselor	15.82	9.73
Home School Counselor	18.98	8.84
Vocational Coordinator	12.94	6.64
Other	13.75	9.73

Table 7

Number of Special Needs Students Taught by Group

Group	Mean	Standard Deviation
Administrator	81.06	122.13
Vocational Teachers	12.06	23.13
Sp. Ed. Teachers	24.69	22.78
Vocational Counselor	88.47	133.16
Home School Counselor	53.56	74.00
Vocational Coordinator	19.23	25.16
Other	43.65	76.79

Table 8

Number of Years Dealing with Special Needs Students by Group

Group	Mean (Years)	Standard Deviation
Administrator	12.38	8.89
Vocational Teachers	7.08	7.03
Sp. Ed. Teachers	9.23	6.19
Vocational Counselor	11.37	7.37
Home School Counselor	13.62	8.63
Vocational Coordinator	7.48	6.75
Other	8.75	10.01

Table 9

Degree of Need in In-Service Teacher Education for Serving Special Needs by Group

Degree	Administrator		Voc Teacher		Sp. Ed. Teacher		Voc Counselor		Home School Counselor		Voc Coordinator		Other		TOTAL	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Much	43	44.33	218	33.18	6	46.15	20	39.22	16	32.65	11	22.92	8	36.36	322	34.36
Much	38	39.18	190	28.92	7	53.85	19	37.25	18	36.73	22	45.83	9	40.91	303	32.34
Some	14	14.43	207	31.15	0	-- --	12	23.53	13	26.73	14	29.17	4	18.18	264	28.18
Little	2	2.06	21	3.20	0	-- --	0	-- --	2	4.08	1	2.08	0	-- --	26	2.77
None	0	- --	21	3.20	0	-- --	0	-- --	0	-- --	0	-- --	1	4.55	22	2.35
TOTAL	97	100.00	657	100.00	13	100.00	51	100.00	49	100.00	48	100.00	22	100.00	937	100.00

Table 3 depicts the total number of questionnaire returns, based upon (1) initial mailing, and (2) follow-up mailing. The totals indicate 45.85% response.

Tables 4 and 5, respectively, indicate the sex and employment status of the respondents. Although not a part of the study in terms of a needs determination, it is interesting to note that of the respondents, there was an approximate 60/40 total ratio of men to women. The responding administrators were 95% male, with vocational coordinators and vocational counselor titles ranking second and third in male dominance. The most even sex distribution was found among vocational teacher titles (53% male, 47% female). Approximately 93% of the total respondents were full-time. Six hundred fifty-three responses were from vocational teachers.

Table 6 indicates that Home School Counselors and administrators possessed the most experience in education; vocational teachers were the least experienced. Tables 7 and 8 reflect the total experience results, indicating that vocational teachers possess the least experience in numbers of special needs students taught and in years of experience with special needs students.

Table 9 demonstrates that all employment groups rated need for special needs in-service in the "same" or more categories in a range of 94% or greater. However, vocational teachers rated "same" or less to the degree of need more often (38%) than any other employment group.

Needs Assessment Data. The data obtained by the survey are contained in Tables 10 and 11. Table 10 identifies the rank of each

Table 10

Degree of Importance of Professional Tasks in Relation to Serving Special Needs in Vocational Programs Rated by Administrators, Vocational Teachers, Special Education Teachers, Vocational Counselors, Home School Counselors, Vocational Cooperative Coordinators and Other School Personnel

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N-98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs Assessment											
1.	Develop rationale and program goals according to legislation.	39	3.0161	Mean	3.26	2.97	3.67	3.12	3.04	3.17	2.95	1.99
				Rank	36	39	33	35	30	37	38	
2.	Administer diagnostic assessment instruments.	37	3.2010	Mean	3.38	3.12	3.83	3.50	3.45	3.17	3.55	3.08*
				Rank	35	37	24 (2)	26	26	37	22	
3.	Identify the students' learning difficulties.	1	4.3687	Mean	4.34	4.39	4.62	4.26	4.27	4.19	4.64	1.21
				Rank	1	1	1	1	2	5	1	
4.	Analyze students' occupational aptitude and interest.	3	4.1002	Mean	3.85	4.13	4.23	3.98	4.04	4.31	4.29	2.19*
				Rank	5	3	4	5	7	2 (1)	2	
5.	Analyze local or regional job market and employment trend.	16	3.7796	Mean	3.46	3.86	4.0	3.38	3.47	3.86	4.10	4.46*
				Rank	31	9	15	29	25	18	4 (4,5,1)	
6.	Establish communication and rapport with potential employers.	5	3.9289	Mean	3.76	3.92	4.15	3.70	3.92	4.50	3.95	3.46*
				Rank	18	6	9	18	11	1 (2,4,5)	5	
7.	Assist students to establish career goals in relation to occupational requirements.	4	4.0343	Mean	4.01	4.02	4.15	3.96	4.22	4.08	3.95	.60
				Rank	3	4	9	7	3	8	5	
8.	Help develop students' work aptitude.	2	4.2086	Mean	4.17	4.24	4.23	4.08	4.06	4.25	4.14	.65
				Rank	2	2	4	3	6	3	3	
9.	Establish appropriate expectation of program success.	35	3.3376	Mean	3.39	3.35	3.75	3.14	2.50	3.27	3.43	1.07
				Rank	34	35	29	34	37	36	28	

*Significant at .05 level

[1] Other indicates school personnel other than administrator, vocational teacher, counselor, cooperative coordinator. It may include school nurses, general course teachers, etc.

Table 10 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs Assessment											
10.	Maintain student records.	32	3.4586	Mean Rank	3.53 28	3.49 30	3.58 35	3.02 36	2.02 39	3.50 37	3.33 33	1.67
	Special Needs: Planning Process											
11.	Establish and use program advisory committee.	36	3.2052	Mean Rank	3.01 39	3.29 36	3.75 29 (4,5)	2.75 39	2.47 38	3.44 33	2.90 39	5.20*
12.	Identify community and governmental agency resources.	29	3.5242	Mean Rank	3.42 32	3.52 29	3.41 37	3.45 27	3.0 32	3.81 19	3.67 9	.95
13.	Identify supportive and resource personnel.	24	3.6584	Mean Rank	3.59 25	3.66 25	3.66 34	3.67 20	3.02 31	3.60 27	3.90 8	.35
14.	Establish a cooperative team (including special education staff, academic teachers, administrative personnel and vocational educators) in planning process.	11	3.8174	Mean Rank	3.89 8	3.81 12	4.25 3	3.78 12	2.92 35	3.96 11	3.67 9	1.17
15.	Identify the basic competencies required in a given occupational field.	7	3.8939	Mean Rank	3.82 11	3.95 5	3.58 35	3.86 9	2.92 35	3.96 11	3.63 14	1.96
16.	Establish performance objectives in relation to each occupational competency.	20	3.7309	Mean Rank	3.68 20	3.82 11	3.91 19 (4)	3.28 31	2.96 34	3.71 24	3.38 30	4.51*
17.	Determine types of instructional materials, teaching methods, and learning situations through a cooperative team.	26	3.5999	Mean Rank	3.51 29	3.61 27	3.85 20	3.53 24	3.40 27	3.69 25	3.67 9	.66
18.	Develop an individualized instructional plan to fit each situation.	31	3.5222	Mean Rank	3.66 23	3.47 32	4.08 13	3.67 20	3.54 23	3.53 30	3.62 14	1.44

Table 10 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs: Planning Process											
19.	Integrate safety laws and health regulations into instructional plan.	23	3.6659	Mean Rank	3.68 20	3.69 22	3.69 31	3.37 30	3.27 28	3.96 11 (4,5)	3.57 21	2.29*
20.	Identify the audio-visual aids and equipment to assist students in learning.	34	3.3832	Mean Rank	3.11 38	3.48 31	3.36 38	2.98 37	3.29 33	3.62 35	4.39* 14 (4,5)	
	Special Needs: Instruction											
21.	Modify traditional teaching methods in relation to learning situation.	14	3.7817	Mean Rank	3.98 4	3.72 17	4.08 13	3.98 5	4.0 8	3.88 15	3.95 5	1.69
22.	Employ techniques of special instruction when applicable.	15	3.7799	Mean Rank	3.81 13	3.77 15	4.15 9	3.92 8	3.81 16	3.77 22	3.67 9	.63
23.	Manage and modify the tools, equipment, facilities, and conditions for learning environment.	28	3.5870	Mean Rank	3.60 24	3.61 27	3.77 25	3.39 28	3.58 22	3.56 29	3.48 26	.44
24.	Implement individualized instruction.	12	3.8035	Mean Rank	3.91 7	3.74 16	4.17 8 (7)	4.04 4	4.10 4	3.88 15	3.60 17	2.19*
25.	Cooperate with supportive personnel to provide remedial programs.	18	3.7481	Mean Rank	3.84 10	3.70 20	4.00 15	3.84 10	3.98 10	3.79 21	3.60 17	1.16
26.	Establish regular students' appropriate attitude to special needs students.	25	3.6249	Mean Rank	3.59 25	3.67 23	3.85 20	3.24 33	3.71 19	3.36 34	3.40 29	2.09
27.	Develop system of communication with special needs students and their parents.	13	3.8002	Mean Rank	3.67 22	3.81 12	4.23 4	3.78 12	3.79 18	3.88 15	3.60 17	.90

Table 10 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs: Instruction											
28.	Determine students' learning motivation.	10	3.8500	Mean Rank	3.80 14	3.88 8	4.23 4	3.74 16	3.71 19	3.60 27	3.50 24	1.65
29.	Identify and modify problem behavior in the classroom.	6	3.8970	Mean Rank	3.95 5	3.92 6	3.84 23	3.69 19	3.90 12	3.80 20	3.45 27	1.13
	Special Needs: Work Experience and Job Placement											
30.	Plan and coordinate on-campus and off-campus work experience programs.	17	3.7524	Mean Rank	3.77 15	3.70 21	4.0 15	3.75 15	4.10 4	4.22 4 (2)	3.05 37 (1,2,3,5,6)	4.15***
31.	Provide career counseling to students for further education or employment.	8	3.8918	Mean Rank	3.94 6	3.81 12	4.38 2	4.22 2	4.33 1	4.17 6	3.50 24 (3,4,5,6)	4.61***
32.	Provide work adjustment counseling.	30	3.5240	Mean Rank	3.58 27 (6)	3.43 34 (6)	3.85 20	3.74 16	3.81 16	4.08 8	3.38 30 (6)	4.60*
33.	Assist employers to work effectively with students.	22	3.7111	Mean Rank	3.69 19	3.67 23	3.77 25	3.66 22	4.0 8	4.11 7 (7)	3.38 30	2.10*
34.	Provide job placement services.	19	3.7475	Mean Rank	3.77 15	3.72 17	3.92 18	3.80 11	3.83 15	4.02 10	3.52 23	.79
	Special Needs: Evaluation											
35.	Evaluate students' performance associated with each instructional objective.	27	3.5917	Mean Rank	3.48 30	3.62 26	3.77 25	3.56 23	3.65 21	3.50 31	3.29 34	.78
36.	Identify the strong and weak areas of total programs.	9	3.8571	Mean Rank	3.82 11	3.86 9	4.15 9	3.78 12	3.87 13	3.91 14	3.67 9	.44
37.	Obtain follow-up information by conducting survey studies.	33	3.4540	Mean Rank	3.41 33	3.46 33	3.69 31	3.26 32	3.51 24	3.67 26	3.29 34	.85

Table 10 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs: Evaluation											
38.	Conduct cost-effectiveness studies of the total program.	38	3.1150	Mean	3.16	3.12	3.31	2.92	3.26	2.90	3.10	.67
				Rank	37	37	39	38	29	39	36	
39.	Revise instructional plan based on evaluation results.	21	3.7211	Mean	3.77	3.72	3.77	3.53	3.87	3.73	3.57	.56
				Rank	15	17	25	24	13	23	20	
Mean	3.6831				3.6682	3.6851	3.9149	3.5979	3.5447	3.7708	3.5885	
Standard Deviation	.2780				.2760	.2855	.2832	.3582	.5348	.3469	.3430	

survey item by total participants and occupational title or category, and the average mean Likert scale score of all participants, and the mean Likert scale score for participants with an occupational title or category, in terms of its "degree of importance". Table 11 supplies similar data in terms of the "need for in-service programs" in regard to each item.

Table 10 Summary. Identification of student learning difficulties and assistance in the development of students' work attitudes were ranked as 1 and 2 in terms of degree of importance of professional tasks regarding the education of special needs learners. Developing rationale and program goals according to legislation and conducting cost-effectiveness studies of the total program were ranked lowest (39 and 38, respectively).

Vocational administrators and teachers expressed the greatest rank divergence in two items: (1) Modification of traditional teaching methods, ranked high (4th) by administrators and low (17th) by teachers; (2) analysis of local job market and employment trend, ranked high by teachers (9th) and low by administrators (31st). Vocational teachers and home school counselors expressed the greatest rank divergence regarding identification of basic competencies, with counselors ranking it low (35th) and teachers high (5th).

Table 11 Summary. Consistent with the two top-ranked items of professional task importance, the need for in-service programs for, (1) identifying students' learning difficulties, and (2) developing students' work attitudes were ranked highest. Lowest rankings were given to maintaining students' records (39), conducting cost-effectiveness studies (38), establishing and using program advisory

Table 11

Need For In-Service Programs in Relation to Serving Special Needs in Vocational Programs Rated by Administrators, Vocational Teachers, Special Education Teachers, Vocational Counselors, Home School Counselors, Vocational Cooperative Coordinators and Other School Personnel

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other[1] N=24	F Ratio
	Special Needs Assessment											
1.	Develop rationale and program goals according to legislation.	36	2.8557	Mean Rank	3.23 20	2.81 36	2.92 31	2.89 30	2.82 32	2.94 32	2.67 38	2.03
2.	Administer diagnostic assessment instruments.	34	2.9081	Mean Rank	3.02 29	2.91 34	2.73 37	2.92 27	2.82 32	2.75 38	3.14 23	0.52
3.	Identify the students' learning difficulties.	1	3.8884	Mean Rank	3.75 2	3.93 1	3.92 1	3.84 2	3.80 1	3.81 36	3.81 2	0.53
4.	Analyze students' occupational aptitude and interest.	3	3.5683	Mean Rank	3.37 14	3.60 3	3.17 21	3.4 10	3.29 9	3.92 1 (3)	3.86 1	2.56*
5.	Analyze local or regional job market and employment trend.	19	3.2204	Mean Rank	3.03 28	3.29 14	3.17 21	2.96 24	2.86 30	3.31 15	3.57 6	2.00
6.	Establish communication and rapport with potential employers.	17	3.2339	Mean Rank	3.02 29	3.31 12	3.00 26	2.82 33	3.0 21	3.29 17	3.52 8 (5)	2.20*
7.	Assist students to establish career goals in relation to occupational requirements.	5	3.4873	Mean Rank	3.52 6	3.48 4	3.00 26	3.42 8	3.55 4	3.54 5	3.71 4	0.59
8.	Help develop students' work aptitude.	2	3.6119	Mean Rank	3.63 4	3.63 2	3.00 26	3.66 4	3.49 6	3.71 2	3.67 5	0.78
9.	Establish appropriate expectation of program success.	33	2.9160	Mean Rank	3.0 33	2.94 33	2.83 33	2.84 32	2.50 36	2.92 33	2.90 33	1.39

*Significant at .05 level

[1] Other indicates school personnel other than administrator, vocational teacher, counselor, cooperative coordinator. It may include school nurses, general course teachers, etc.

Table 11 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other[1] N=24	F Ratio
	Special Needs Assessment											
10.	Maintain student records.	39	2.5905	Mean Rank	2.74 36 (7)	2.62 39	2.67 38	2.38 38	2.02 39	2.56 39	2.76 35 (5)	2.44*
	Special Needs: Planning Process											
11.	Establish and use program advisory committee.	37	2.7364	Mean Rank	2.68 38	2.76 37	3.25 17	2.36 39 (2,3,6)	2.47 38	3.00 30	2.67 36	2.17*
12.	Identify community and governmental agency resources.	27	3.0941	Mean Rank	3.01 31	3.09 28	3.42 13	2.92 27	3.0 21	3.35 13	3.23 20	.90
13.	Identify supportive and resource personnel.	24	3.1411	Mean Rank	3.04 27	3.15 23	3.08 25	3.08 22	3.02 18	3.23 21	3.29 18	.35
14.	Establish a cooperative team (including special education staff, academic teachers, administrative personnel and vocational educators) in planning process.	9	3.3593	Mean Rank	3.52 6	3.35 9	3.58 9	3.32 11	2.91 28	3.50 6	3.24 19	1.56
15.	Identify the basic competencies required in a given occupational field.	10	3.3333	Mean Rank	3.47 10	3.35 9	3.25 17	3.14 19	2.91 28	3.46 7	3.48 10	1.56
16.	Establish performance objectives in relation to each occupational competency.	20	3.2171	Mean Rank	3.32 17	3.23 18	3.17 21	2.96 24	2.96 25	3.42 10	3.10 24	1.17
17.	Determine types of instructional materials teaching methods, and learning situations through a cooperative team.	11	3.3300	Mean Rank	3.30 18	3.34 11	3.58 9	3.42 8	3.13 14	3.29 17	3.57 6	.54
18.	Develop an individualized instructional plan to fit each situation.	15	3.2561	Mean Rank	3.47 10	3.20 20	3.75 5	3.26 12	3.15 13	3.38 12	3.52 8	1.21

Table 11 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs: Planning Process											
19.	Integrate safety laws and health regulations into instructional plan.	30	3.0088	Mean Rank	3.15 25	3.03 30	2.75 35	2.72 34	2.67 34	3.10 24	3.05 27	1.38
20.	Identify the audio-visual aids and equipment to assist students in learning.	32	2.9163	Mean Rank	2.65 39	3.00 31	3.00 26	2.58 35	2.5 36	2.83 35	3.33 14 (1,4,5)	3.04*
	Special Needs: Instruction											
21.	Modify traditional teaching methods in relation to learning situation.	6	3.4757	Mean Rank	3.81 1	3.37 6	3.75 5	3.70 3	3.70 2	3.60 3	3.81 2 (2)	2.93*
22.	Employ techniques of special instruction when applicable.	7	3.4390	Mean Rank	3.67 3	3.37 6	3.83 3	3.92 1	3.67 3	3.56 4	3.45 11	1.51
23.	Manage and modify the tools, equipment, facilities, and conditions for learning environment.	22	3.1755	Mean Rank	3.24 19	3.18 21	3.17 21	3.14 19	3.00 21	3.15 23	3.33 14	.28
24.	Implement individualized instruction.	12	3.3196	Mean Rank	3.52 6	3.25 17	3.33 14	3.64 5	3.55 4	3.29 17	3.2 22	1.59
25.	Cooperate with supportive personnel to provide remedial programs.	21	3.2055	Mean Rank	3.41 12	3.18 21	3.25 17	3.26 12	3.13 14	3.06 27	3.35 12	.77
26.	Establish regular students' appropriate attitude to special needs students.	26	3.1017	Mean Rank	3.21 23	3.12 25	3.23 20	2.9 29	3.02 18	2.91 34	3.10 24	.59
27.	Develop system of communication with special needs students and their parents.	16	3.2467	Mean Rank	3.35 15	3.26 16	3.46 12	3.26 12	2.96 25	3.10 24	3.35 12	.65

Table 11 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs: Instruction											
28.	Determine students' learning motivation.	8	3.3829	Mean Rank	3.48 9	3.37 6	3.75 5	3.55 6	3.17 12	3.25 20	3.20 21	.86
29.	Identify and modify problem behavior in the classroom.	4	3.49	Mean Rank	3.62 5	3.47 5	3.85 2	3.44 7	3.40 7	3.44 8	3.30 16	.49
	Special Needs: Work Experience and Job Placement											
30.	Plan and coordinate on-campus and off-campus work experience programs.	14	3.2849	Mean Rank	3.22 22	3.31 12	3.33 14	3.06 23	3.19 10	3.44 8	3.05 27	.58
31.	Provide career counseling to students for further education or employment.	13	3.2901	Mean Rank	3.23 20	3.27 15	3.83 3	3.25 16	3.31 8	3.42 10	3.30 16	.51
32.	Provide work adjustment counseling.	31	2.9944	Mean Rank	2.84 35	2.95 32	3.50 11	3.24 17	3.08 17	3.35 13	3.10 24	1.88
33.	Assist employers to work effectively with students.	25	3.1292	Mean Rank	3.13 26	3.11 26	3.31 16	3.24 17	3.13 14	3.19 22	3.05 27	.16
34.	Provide job placement services.	28	3.0842	Mean Rank	2.99 34	3.10 27	3.61 8	3.12 21	2.94 27	3.04 29	2.95 32	.57
	Special Needs: Evaluation											
35.	Evaluate students' performance associated with each instructional objective.	29	3.0478	Mean Rank	3.20 24	3.06 29	2.75 35	2.86 31	3.0 21	2.96 31	2.81 34	.81
36.	Identify the strong and weak areas of total programs.	18	3.2323	Mean Rank	3.41 12	3.22 19	3.0 26	3.26 12	3.02 18	3.30 16	3.0 30	.79
37.	Obtain follow-up information by conducting survey studies.	35	2.8735	Mean Rank	3.01 32	2.89 35	2.83 33	2.48 37	2.67 34	3.06 27	2.67 36	1.53

Table 11 (Continued)

Item #	Professional Tasks	Rank	Avg. Mean N=963		1 Administrator N=98	2 Vocational Teacher N=680	3 Special Ed. Teacher N=13	4 Vocational Counselor N=51	5 Home School Counselor N=49	6 Co-op Coordinator N=48	7 Other N=24	F Ratio
	Special Needs: Evaluation											
38.	Conduct cost-effectiveness studies of the total program.	38	2.6748	Mean	2.73	2.65	2.58	2.56	2.83	2.77	2.62	.30
				Rank	37	38	39	36	31	37	39	
39.	Revise instructional plan based on evaluation results.	23	3.1426	Mean	3.33	3.14	2.92	2.94	3.19	3.10	3.00	.68
				Rank	16	24	31	26	10	24	30	
	Mean 3.1839				3.2387	3.1869	3.2422	3.1208	3.0470	3.2385	3.2227	
	Standard Deviation .2637				.2925	.2604	.3670	.3780	.3564	.2934	.3299	

committees (37), and developing rationale and program goals according to legislation (36).

Vocational teachers' and administrators' ranking of need for in-service differed in two main areas: (1) Analysis of local job market and employment trends, with administrators low (28th), teachers high (14th); and (2) establish communication and rapport with potential employers, with administrators low (29th) and teachers high (12th). Vocational teachers and home school counselors differed most regarding: (1) Establishing a cooperative team (9th and 28th, respectively); and (2) identification of basic competencies (9th and 28th, respectively).

CHAPTER V

SUMMARY, CONSTRAINTS, RECOMMENDATIONS

Summary

Similar to the Welch-Cooke project, this project addressed the problem of providing in-service instruction regarding the education of special needs learners. It also sought to field-test the fourth module developed at The University of Pittsburgh. Finally, the project was designed to sample and assess in-service needs regarding procedures for training Centre Region vocational teachers in the education of special needs students.

Two courses and several in-service meetings were presented in order to accomplish the above objectives. Thirty in-service teachers participated in the two courses and approximately 110 in-service teachers attended the conferences. Additional contact with in-service teachers was achieved at The Pennsylvania Association for Vocational Education of Special Needs Personnel Winter Conference, Mechanicsburg, and The Pennsylvania Vocational Education Conference, Lancaster, Pennsylvania.

A special needs in-service needs assessment survey was conducted among 2209 vocational educators and support personnel in the Centre Region. Over 45% of all the personnel responded to the survey, isolating the key elements regarding degree of importance of special needs education issues and the relative need for in-service activity in their regard.

Over 1200 vocational educators and support personnel participated in the elaboration of their perceptions of need for content in a system of in-service delivery regarding special needs education and direct receipt of in-service delivery. As a result, the information is readily available to develop a variety of modes of in-service programs to meet the needs of teachers not already addressed in the past two years of continuing efforts in that regard.

It was found that the final available Pittsburgh module can readily be adapted for instruction by course format. While too long and intricate to use in short in-service sessions, the module is particularly useful when combined with preceding modules for independent study or traditional delivery of preservice and in-service education course work.

Constraints

Obvious constraints to the achievement of saturation delivery of service to all vocational educators in Centre Region were contained in the structure of the project. First, the project was restricted to a delivery system which included only five locations of vocational educators. Thus, many teachers in other AVTS's have not immediately benefitted from the project. Second, one project director and one associate are not sufficient personnel to carry out delivery of in-service education to the large number of AVTS locations in Centre Region. Consequently, the delivery was to too small a constituency. Third, the project was designed to field-test modules developed by The University of Pittsburgh, but due to personnel changes, the production of those modules was ceased at that facility. While it is true that similar modules are in the developmental process at Indiana University, Pennsylvania, the continuity of the field-testing process and usefulness of the results has been impaired.

The most serious constraint to effective in-service training in the vocational education of special needs learners results from the lack of direct involvement of vocational educators in the identification and assessment of special needs students. Vocational teachers are virtually excluded from the Individualized Education Plan (IEP) development for special needs students. In many cases, information regarding special needs status of students is intentionally withheld from vocational teachers. The effect of the withholding of information and denial of involvement in the development of IEP's is alienation. Resultant from this alienation is a manifested resistance to special needs in-service education. The following response to the needs assessment survey clearly points out the resistance which occurs:

> Please excuse the informality of my note, but, as you say, this is a hectic time.
>
> I threw my questionnaire away because I had trouble deciding what a special needs student was and whether I had any in my class; I don't think I do."
>
> Signed
> (Name withheld for confidentiality)

If the person who felt compelled to write this note was actually involved in the identification and assessment process, it is unlikely that that person would not know what constitutes special needs and would be certain as to whether or not such a student occupied space in the classroom.

In addition to the resistance created by the lack of involvement, there have been clear instances of hard core resistance to special needs students, even when the teacher has been knowledgeable. In each in-service session and course there have been teachers who express an unwillingness to address the needs of special needs students. Supplying information and involving them in workshop type activities simply does not overcome this attitudinal defect.

Recommendations

Based upon the experience of the past two years of this project, it is clear that the in-service education of vocational teachers to provide adequate vocational education for special needs students is not yet complete. Because of the serious constraint due to lack of direct involvement of vocational teachers in the identification, assessment, and development of individualized education plans for these students, it is questionable that other than limited informational and resource objectives can be met. In fact, it is conceivable that the conclusions would be pyrrhic victory. It is not, however, within the purview of this project to make specific recommendations to ameliorate the conditions of elitism in education. There are significant gains which can be accomplished by continuation of similar in-service activities. They are addressed in the following recommendations:

1. Delivery of special needs in-service education to those teachers in locations not reached in the first two years of project activity.
2. Coordination of data and subjective information yield of the first two phases of the project to provide valid, concise programs of in-service education.
3. Establishment of liaison between sending schools and AVTS's via special teams committed to organized

procedural development of formal rapport processes for all persons involved in the vocational education of special needs students.

4. Development of programs of attitude adjustment for hard core resistors.
5. Compilations of support and materials resources into specific special needs packages from the product yields of Phases 1 and 2 of this project and those to come in a third year.

In the absence of clear, mandatory involvement of vocational teachers in the process of identification, assessment, and planning for the education of special needs learners, the best alternative is the availability of relevant information and resources and instructions in their use. At least, with specific materials available, those teachers who are alienated have a base from which to operate when confronted with a student who cannot succeed in a vocational program without special assistance. Perhaps, also, some of the manifestations of alienation can be neutralized by easy access to solutions for the problems of modifying and adapting instruction for special needs learners. These recommendations will not overcome the elitism that is retarding progress in overcoming obstacles for special needs students, but an informed and resource-ready vocational educator is less likely to be an alienated resistor to special needs students' education.

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APPENDICES

APPENDIX A

LANCASTER AVTS INSERVICE DAY

November 13, 1978

Meeting The Needs
of
Special Needs Learners

L. Jay Thornton
Jeannine Fan Subisak

The Pennsylvania State University
Division of Occupational
and Vocational Studies

Project:

Assessing and Meeting the In-Service Staff Development
Needs of Vocational Educators Serving Special Needs Learners

AGENDA

8:00 Coffee - Donuts

8:30 Introduction
- Guidelines -- Film
- Definitions
- Identification

Break

10:30 Instruction
- Planning
- Modifying Methods
- Implementation

Lunch 12:00 - 1:00 P.M.

1:00 Motivation -- Film

1:30 Reading Problems

2:00 Michael Lynes, Berks Vo-Tec School

3:00 Close

APPENDIX B

A MORE DESCRIPTIVE LIST OF CONDITIONS AND CHARACTERISTICS OF HANDICAPPED INDIVIDUALS[1]

PHYSICAL

Speech

1. Do not speak distinctly and lack sufficient volume to be heard

2. Try hard but no sound comes out

3. Blink their eyes excessively or engage in other bodily motions while talking

4. Lisp

5 Omit sounds from words, add to words, distort words, and substitute one letter for another

Hearing

1. Seem inattentive consistently

2. Have difficulty in locating sound direction

3. Show repeated inability to hear in a group

4. Frequently fail to respond to questions

5. Ask to have words or sentences repeated

6. Have an unusually loud or weak voice

7. Withdraw from the group

8. Complain of buzzing or ringing in the ears

9. Have poor articulation

Visual

1. Rub their eyes excessively, frown, and attempt to brush away blurs

2. Blink frequently and may become irritable when doing close work

3. Have crossed eyes

4. Stumble or trip over small objects
5. Are unable to participate in games requiring distance vision
6. Write erratically
7. Complain of dizziness, headaches, or nausea following close eye work

Crippling

1. Have poor coordination
2. Walk awkwardly or with a limp
3. Move in a jerky or shaky fashion
4. Show signs of pain during exercise
5. Have defects which interfere with normal functioning of the bones, muscles, or joints

   (A few of the more common crippling conditions are: cerebral palsy, infantile paralysis, arthritis, bone and joint disease)

Other Health Handicaps

1. Are easily fatigued
2. Are excessively restless and are overactive
3. Are usually breathless after exercise
4. Complain of chest pains after physical exercise
5. Are subject to frequent colds
6. Are extremely inattentive
7. Are excessively hungry and thirsty

   (A few of the more usual health problems are: rheumatic fever, organic heart disease, epilepsy, diabetes, asthma, and nutritional deficiencies)

MENTAL

1. Is exceptionally talented (meets one or more criteria)

a. IQ - 120 or higher

b. Majority of marks A and B in related subjects

c. Upper one-half of local norms determined by chronological age and standardized test scores

d. Average in all areas of education when compared to other students

2. Has sub-average general intellectual functioning, with impairment in one or more of the following aspects of adaptive behavior: (EMR)

_________maturation _________learning _________social adjustment

EMOTIONAL

1. Often reacts unacceptably to life situations
2. Exhibits nervous mannerisms (crying, nail-biting, etc.)
3. Is over anxious to get approval of others
4. Shows marked degree of fear, apprehension, and is easily hurt
5. Is moody, depressed, suspicious, and seclusive
6. Appears more unhappy than most children

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1. Source unknown. Contained in the Special Needs Project Files, Division of Occupational and Vocational Studies, The Pennsylvania State University.

DISADVANTAGED PERSONS[1]

CRITERIA

1. Overage for Grade by at Least Two Years.

   Two basic groups of reasons for being overage in grade should be considered:

   a. Student has participated in the system, with successive failure.

   b. Student has not participated in the system because of health, family mobility, or other reasons beyond the control of the student.

2. Having Difficulty in Communicating in Writing or Speaking.

   This criterion relates very closely to criterion 4, "Have a reading level at least two grades below grade placement." Essentially, the cognitive areas and intellectural processes are the same. Some of the major differences lie in the psychomotor domain. It is suggested that problems in any of the three areas: writing, speaking, or reading must be considered in relation to the performance in the other areas.

3. Are Frequently Absent from Class or Work Without Apparent Cause.

   While the sources of the causes of this category of behavior are obviously complex, we must recognize that there are still basic factors of cause and effect. The effects may be simple observable behavior or there may be intermediate steps, but it is expedient to consider only the observable behavior; certainly, given the limited time that most school staff have, it seems unjustified to spend time researching a factor that may prove only academic since the school cannot solve all of the world's problems.

4. Have a Reading Level at Least Two Grade Levels Below Grade Placement.

   The probable causes of low achievement in reading may be considered in three major categories; physical, cultural, and attitudinal. The last of these may properly be included in the cultural category, but for purposes of secondary curriculum strategies, it helps to make this distinction.

5. Have a Math Ability at Least Two Grades Below Grade Level.

Making mathematical or arithmetic computations is basically a communications skill. These processes are expressions of temporal, quantitative, or spatial relationships, or the changes in those relationships. We deal with those concepts through a media of symbols and structures similar to the words and grammar used in the primary spoken "tongue". If a student is fluent in a primary language, that student can process abstract concepts and symbols. Therefore, it may be said that the student has the intellectual skills necessary for success in mathematics. Why, then do some students speak, read, and write fluently, but do poorly in mathematics?

6. Exhibit Hostile or Apathetic Behavior.

There are many specific causes for this category of disadvantagement; the common denominator is frustration, which is simply a term for unfilled needs. The difference between these overt behaviors is whether the frustration elicits aggression or regression; action or withdrawal. Many teachers feel less threatened by the apathetic student and frequently label them as "dull", which allows convenient tracking. Indeed, one of the great challenges to today's education is to distinguish between youngsters who are truly mentally handicapped and those who either have come from stimulus-deprived environments (barren), and have become apathetic, or have come from minority cultures with different cognitive and behavior patterns.

7. Need Economic Assistance to Continue Their Educational Programs.

The problem of family poverty with resultant obstacles to education is obvious. There are, however, social and psychological factors resulting in the need for economic assistance.

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[1] Source unknown. Contained in The Special Needs Project Files, The Division of Occupational and Vocational Studies, The Pennsylvania State University.

APPENDIX C

INSTRUCTIONAL PLANNING

Introduction

a. Importances

b. Advantages

Case Study 1: Cathy

Case Study 2: Matt

Case Study 3: Claude

Exercise

LEARNING PRESCRIPTION

Learner:______________________________ Instructional Team:______________

School:______________________________ ______________________________

Date:______________________________ ______________________________

A. Appropriate Learning Mode

Directions: Indicate by numbering, the three most appropriate learning modes for this student. Check others that may also be appropriate.

____Audio/visual presentation
____Observation of goal behavior
____Interview/conference with knowledgeable person
____Experiment/laboratory experience/project
____Programmed instruction
____Simulation/games

____Field experience(s)
____Role playing
____Reading
____Audio recording
____Other (specify):
____
____

B. Interaction Mode

Directions: Indicate below the situations in which the student will work most productively.

____Independently (alone)
____Peer/partner
____Small group

____Large group
____Individually with teacher or aide

C. Additional Learning Style Considerations: ______________________________

____

____

____

____

Matt: A Case Study

Matt is 25 years old and has never attended a public school. Since the age of five he has lived in a state hospital for the severely handicapped. While his hearing and vision are impaired to some extent, he has excellent fine motor coordination and manual dexterity.

Some time ago three of the staff members at the sheltered workshop in the state hospital where Matt resides became interested in new training techniques. Prior to this, Dick Atkin, one of the staff members, had been in contact with the owner of a small shop that sells and services motorcycles and other recreational vehicles. The owner noted that they frequently accumulated a large supply of spark plugs that could be re-sold if they were cleaned and adjusted. After considerable discussion, and a demonstration of the cleaning and adjusting process, the manager provided Dick with several dozen used spark plugs and the tools and materials needed for cleaning and adjusting them.

Dick and his two associates began thoroughly learning the task themselves and searching for numerous, alternative ways in which it could be performed. They eventually outlined a task procedure and several possible ways of teaching it to Matt.

This task, when taught by an auto mechanics teacher to non-special needs learners in a school setting, is generally considered quite simple. For Matt, however, the task had to be divided into and presented in much smaller segments for learning to occur. It took approximately 10 1/2 hours to train Matt to perform the task to criterion level. Criterion level was defined as cleaning and adjusting 15 plugs per hour to the manufacturer's specification. In the five four hour work days that followed, Matt's production reached 65, 93, 106, 110, and 115 spark plugs per day. During this period he earned $101.80.

The process of detailed task analysis as demonstrated by Dick Atkin and his colleagues has proven to be highly successful in teaching and training severely handicapped persons like Matt to perform vocational tasks. Until recently, society has chosen to believe that there was very little that severely handicapped people could do. By choosing to look for alternate ways of performing and teaching the task instead of the limitations of the learner, Dick Atkin and others have uncovered a valuable and sizable manpower resource.

CLUSTER/PROGRAM: Work Training

Task: Clean and adjust spark plugs

Id: No.: 1

Learner: Matt

Progress				Occupational Performance Objectives
Introduced	*Involved*	*Productive*	*Employable*	*Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:*
				1. Pick up and place plug in solvent solution
				2. Remove and place plug in plug holder jig with bottom up
				3. Wire brush until clean (use cleaned condition picture for comparison)
				4. Determine plug gap by using different sized guages and placing them between the gap until appropriate size is locate
				5. Determine whether plug gap is correct by comparing guage size with the master size on the poster attached to the bench
				6. If necessary, close gap by tapping the ground of the plug lightly with a soft-face hammer unitl the gap guage is moveable within the gap, but both the electrode and ground are touching the surface of the gap guage
				7. Remove plug from jig and place in inspection basket

Basic Skills/ Concepts	Basic Skill/Concept Content	Progress		
		Introduced	*Developing*	*Competent*
Finger dexterity	Grasp and hold spark plug			
Form discrimination	Recognize electrode (top) and ground (bottom) ends of spark plug			
Hand-eye coordination	Brushing strokes			
Number recognition	.025, .030, .035, .040 (sizes on the various guages)			
Number recognition and matching	Match 3 digit numbers shown above with those on a wall chart			
Grasping	Hammer handle			
Fine motor coordination	Light tapping of hammer on metal			
Manual dexterity				
Touch discrimination	Feeling the distances between metal surfaces by placing a metal plug between the surfaces			
Grasp and remove				

CLUSTER PROGRAM: Work Training

Id. No.: 1

Task: Clean and adjust spark plugs

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites: Design and build a spark plug holding jig that will hold plug in stationary, inverted position Provide individual demonstrations of each step in procedure Instructor places hands on learner's hands and manipulates fingers for various steps Drill the learner on recognition of single numbers, then multiple numbers Continuous reinforcement	*Teacher Activities:*
Learner Activities:	*Learner Activities:*

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	*Media*	*Source*	*Name/Title*	*Media*	*Source*
Spark plug holding jig Spark plug gap guage Number charts Wire brush Spark blug cleaning solvent Soft-face hammer					

SPECIAL NEEDS PROGRAM - STUDENT INFORMATION/IDENTIFICATION FORM

Directions: Please complete as much of the information below as possible. Sources of information to be used in completing this form include: pupil school records, classroom observations, and individual counseling with the student.

Student Name: ____________________ Grade: _____ Referral Date: ______________

Address: ______________________________________ Sex: ___ Birthdate: _________

Age: _____

Reason for Referral Action: ____

____

____

PARENTS: Father's Name: ____

Address: ____ Telephone: _____

Mother's Name: ____

Address: ____ Telephone: _____

Guardian's Name: ____________________________ Relationship: _____

Address: ____ Telephone: _____

EMPLOYMENT: (occupation and place of employment)

Father: ____

Mother: ____

Guardian: ____

PARENTS CONTACTED: _____ Yes _____ No

STUDENT EMPLOYMENT GOALS: ____

____

SPECIAL SERVICES BEING RECEIVED: ______________________________________

____

RECEIVED BY: __________________________, (Title): __________ (Date): ______

ACTION TAKEN: ____

____

____

Cathy: A Case Study

Cathy is enrolled in the Ornamental horticulture program at an area vocational center located in a suburb of a large midwestern city. Throughout her junior and senior high school years she has continued to encounter reading problems, even though she has been in the remedial reading program since the fifth grade. This year she has developed a keen interest in horticulture, and working with flowers in particular. During the first quarter she and the other students conducted a series of experiments which will give them an understanding of plant theory. Mr. Bergston, the Horticulture teacher, and Ms. Roson, an instructor in the Learning Skills Lab at the Center, together developed an instructional module for each experiment

The first experiment, which is presented in the example module, focused on: recognizing the effect of temperature on germination and growth. A number of performance objectives were identified which Cathy and other learners were to have attained at the conclusion of the experiment. The basic skills/concepts (such as measuring with a rule and reading a thermometer) involved in each of the objectives were also described. On the reverse side of the module, a number of instructional activities describing how the Horticulture and Learning Skills Lab instruction were coordinated were listed. During the 15-day experiment Ms. Roson worked with Cathy on: (1) understanding the key technical vocabulary terms such as "vermiculite" and "germination," (2) measuring the heights of the plants, and (3) reading and recording the temperature on the thermometers. As the experiment progressed, Ms. Roson and Mr. Bergston talked frequently about the enthusiasm and interest Cathy was exhibiting as a result of their team effort.

CLUSTER/PROGRAM: Ornamental horticulture

Id. No.: 12

Task: Recognizing the effects of temperature on germination and plant growth

Learner: Cathy

Progress				Occupational Performance Objectives	Basic Skills/Concepts	Basic Skill/Concept Content	Progress		
Introduced	*Involved*	*Productive*	*Employable*				*Introduced*	*Developing*	*Competent*
				Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:					
				1. Observe the length of time for seeds to germinate at two temperatures					
				a. Obtain materials					
				b. Saturate vermiculite with water					
				c. Sow five seeds in vermiculite 1/4" deep					
				d. Record date of planting on tape on the pot	Record information	Date of planting Date of germination			
				e. Place one pot in hot box while leaving other in room					
				2. Record the rate of growth					
				a. Read and record the temperature in the room and hot box	Read a thermometer	To within plus or minus one or two degrees			
				b. Observe when seeds have germinated (just appear above vermiculite)					
				c. Record the date, room temperature, hot box temperature, and height of each plant daily on a worksheet	Measurement	Read a ruler to within plus or minus 1/16" accuracy			
				3. State a conclusion regarding the effect of temperature on germination	Generalization	Plant in warmer environment germinated and grew faster than plant in the room temperature environment			

CLUSTER/PROGRAM: Ornamental Horticulture

Id. No.: 12

Task: Recognizing the effects of temperature on germination and plant growth

OCCUPATIONAL INSTRUCTION

Teacher Activites:

Assist student in collecting materials and preparing vermiculite

Plant seeds on a Friday so observation can occur the following week

Review and discuss purpose of experiment

Ask student to describe the results of his/her experiment to classmates

Learner Activities:

BASIC SKILL/CONCEPT INSTRUCTION

Teacher Activities:

Reinforce key terminology and spelling

- Vermiculite
- Marigold seeds
- Saturate
- Germination
- Environment
- Seedling
- Thermometer

Have students measure and record heights of various plants for practice exercise

Have student take and record temperatures outdoors and indoors for practice exercise

Learner Activities:

Water plants daily under supervision of teacher (1/4 cup for 4" potted plant)

Measure temperatures daily and record

Measure plant height daily and record

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	*Media*	*Source*	*Name/Title*	*Media*	*Source*
Vermiculite in container			2 wooden markers		
2 containers					
Seeds (marigold)					
Worksheet					
Hot box					
Two thermometers					
Ruler					

Claude: A Case Study

Mr. Bingham, Ms. Logan, and Mr. Cattington have been planning and coordinating Claude's cooperative education work experience this year. Mr. Bingham teaches in the Learning Resource program at Addison High School while Ms. Logan is a teacher-coordinator in the distributive education (retailing) program. Jeff Cattington is one of the three auto and power mechanics teachers at Addison, which is located in an urban setting and attended by predominantly black and Spanish-speaking students.

Claude is 18 and lives with his mother and five brothers and sisters in a low income housing apartment complex. At the beginning of the tenth grade his reading and math achievement scores were 3-4 grade levels below those of his peers. He was subsequently referred for remedial assistance and has been in the Learning Resource program for 2 1/2 years.

In September Mr. Cattington was able to locate a part-time job for Claude in a neighborhood gas station. In addition to pumping gas and working in the driveway, he has learned to change tires and replace exhaust systems. Recently, he has been working with the owner-mechanic, learning how to use the electronic diagnosis scope. In more than six months he has missed only four days of work and received two pay raises. He currently makes $3.85 per hour.

Claude's mother feels he has excelled in his school work primarily because of the intense interest shown by his teachers this year. When Claude first went to work Ms. Logan and Mr. Bingham met frequently to plan a series of modules that were coordinated with his job activities.

Later in the semester, the emphasis was directed toward job seeking and maintenance skills such as filling out job applications, joining a union, and applying for a social security number. The social security module, which was developed by the team, is presented in Form V.1.2(d).

In June, Claude will have completed all of the courses for graduation except one. His grades and school attendance have improved considerably this year. As soon as school is out he will go to work full-time at the station and has assured everyone that he will enroll in the adult evening program in the Fall to complete his graduation requirements.

CLUSTER/PROGRAM: All clusters/Cooperative Work Experience

Task: Apply for a social security card

Id. No.: 16

Learner: Claude

Progress				Occupational Performance Objectives
Introduced	*Involved*	*Productive*	*Employable*	
				Given the necessary background information and application forms, the learner will:
				1. Choose to apply for a social security card if he/she does not currently possess one.
				2. Complete an application for Social Security Number (or replacement if lost card) by providing accurate and complete information.

Basic Skills/ Concepts	Basic Skill/Concept Content	Pro- gress		
		Introduced	*Developing*	*Competent*
Form completion	Full name, Name given at birth, Place of birth (city, county, state), Age on last birthday, Mother's full name at birth, Father's full name, applied before? Sex, color or race, Mailing address, Date, Signature.			
Accuracy	Verify and double check information provided			
Written communication	Print information clearly			
Technical vocabulary	Mother's maiden name Previous federal applications for: social security number railroad number tax account number Color or race white Negro other Treasury Department, Internal Revenue Service			

CLUSTER/PROGRAM: All clusters/Cooperative Work Experience

Id. No.: 16

Task: Apply for a social security card

OCCUPATIONAL INSTRUCTION

Teacher Activites:

Discuss the purpose of social security, how it is deducted from paycheck, etc. in small groups.

Organize a field trip for small group to the social security administration offices.

Invite a coop employer to visit the class and discuss how social security deductions are computed & submitted to IRS.

Arrange for class to fill out application form.

Learner Activities:

Students fill out application forms using personal information sheets.

Student's check each other's completed forms.

Interview an employer regarding social security deductions.

BASIC SKILL/CONCEPT INSTRUCTION

Teacher Activities:

Obtain or prepare several copies of Application for Social Security number form.

Develop role play situations where students has to:
1. request and complete a replacement application form
2. request and complete a request for change in Social Security Records.

Have application form information brailled or translated to primary language if needed.

Learner Activities:

Have students list on paper all of the information required on the application.

Practice stating information in the briefest form (e.g., dates: 1/1/76).

Students check each other's information sheets.

Students take completed forms to Post Office and submit individually, or in teams.

Practice printing required information clearly.

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	Media	Source	Name/Title	Media	Source
			Application for Social Security Number	form	Post Office

CLUSTER/PROGRAM: Marketing and Distribution/Retailing

Id. No.: 17

Task: Handle credit card transactions

Learner: Claude

Progress				Occupational Performance Objectives	Basic Skills/ Concepts	Basic Skill/Concept Content			
Introduced	*Involved*	*Productive*	*Employable*	*Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:*			*Introduced*	*Developing*	*Competent*
				1. Identify and describe the information required on a credit card transaction	Reading/retention	Information commonly found on credit card sales receipts			
				a. product description	Verbal communication	Orally describe the different sections of the receipt			
				b. quantity					
				c. customer number					
				d. customer signature					
				e. cost					
				f. tax					
				2. Demonstrate the procedure for handling credit card transactions					
				a. obtain card from customer	Verbal commun.	Communicate with purchaser			
				b. itemize purchases and tax on receipt form	Written commun. Record numbers	Fill out a credit card receipt form From pump meter, cash register, or adding machine			
				c. set cost digits on machine					
				d. place card in roller machine	Addition	Itemized purchases (gas, oil, parts, tax)			
				e. place receipt in machine	Multiplication	Computing tax on purchases or reading tax chart			
				f. roll head over card					
				g. remove receipt and card for purchaser to sign					
				h. return card to purchaser	Verbal commun.	Communicate with purchaser			
				i. place store copy of receipt in predetermined location					
				3. Describe and demonstrate the methods/procedures for checking credit card validity					
				a. check signature on card					
				b. check expiration date on card	General number use	Read and interpret expiration dates on credit cards (12/76)			
				c. call telephone number to verify credit rating	Telephone communication	Request verification for specific credit card (e.g., card no. 560 226 7)			

APPENDIX D

MODIFYING INSTRUCTIONAL METHODS

General Methods of Instruction

Special Teaching Activities and Techniques

GENERAL METHODS OF INSTRUCTION

Comparative Analysis – A thought process, structured by the teacher, employing the description, classification, and analysis of more than one system, group, or the like so as to ascertain and evaluate similarities and differences.

Conference – A one-to-one interaction between teacher and learner where the individual's needs and problems can be dealt with. Diagnosis, evaluation, and prescription may all be involved.

Demonstration – An activity in which the teacher or another person uses examples, experiments, and/or other actual performance to illustrate a principle or show others how to do something.

Diagnosis – The continuous determination of the nature of learning difficulties and deficiencies, used in teaching as a basis for the selection – day by day or moment by moment – of appropriate content and methods of instruction.

Directed Observation – Guided observation provided for the purpose of improving the study, understanding, and evaluation of that which is observed.

Discussion – An activity in which pupils, under teacher and/or pupil direction, exchange points of view concerning a topic, question, or problem to arrive at a decision or conclusion.

Drill – An orderly, repetitive learning activity intended to help develop or fix a specific skill or aspect of knowledge.

Experimentation – An activity involving a planned procedure accompanied by control of conditions and/or controlled variation of conditions together with observation of results for the purpose of discovering relationships and evaluating the reasonableness of a specific hypothesis.

Field Experience – Educational work experience, sometimes fully paid, acquired by pupils in a practical service situation.

Field Trip – An educational trip to places where pupils can study the content of instruction directly in its functional setting, e.g., factory, newspaper office, or fire department.

Group Work – A process in which members of the class, working cooperatively rather than individually, formulate and work toward common objectives under the guidance of one or more leaders.

Laboratory Experience – Learning activities carried on by pupils in a laboratory designed for individual or group study of a particular subject-matter area, involving the practical application of theory through observation, experimentation, and research, or, in the case of foreign language instruction, involving learning through demonstration, drill, and practice. This applies also to the study of art and music, although such activity in this instance may be referred to as a studio experience.

Lecture – An activity in which the teacher gives an oral presentation o facts or principles, the class frequently being responsible for note taking. This activity usually involves little or no pupil participation b questioning or discussion.

Manipulative and Tactile Activity – Activity by which pupils utili the movement of various muscles and the sense of touch to devel manipulative and/or perceptual skills.

Modeling and Imitation – An activity frequently used for instructio in speech, in which the pupils listen to and observe a model as a bas upon which to practice and improve their performance.

Problem-Solving – A thought process structured by the teacher an employed by the pupils for clearly defining a problem, forming hypothetical solutions, and possibly testing the hypothesis.

Programmed Instruction – Instruction utilizing a workbook or mechanical and/or electronic device which has been "programmed" to hel pupils attain a specified level of performance by (a) providing instruction in small steps, (b) asking one or more questions about each step i the instruction and providing instant knowledge of whether each answe is right or wrong, and (c) enabling pupils to progress at their own pace

Project – A significant, practical unit of activity having educational value, aimed at one or more definite goals of understanding and involving the investigation and solution of problems.

Reading – Gathering information from books, periodicals, encyclopedias, and other printed sources of information, including oral reading and silent reading by individuals.

Recitation – Activities devoted to reporting to a class or other group about information acquired through individual study or group work.

Role-Play – An activity in which students and/or teacher take on the behavior of a hypothetical or real personality in order to solve a problem and gain insight into a situation.

Seminar – An activity in which a group of pupils, engaged in research or advanced study, meets under the general direction of one or more staff members for a discussion of problems of mutual interest.

Sensitivity Training – An activity in which a group and a trainer meet to self-consciously examine their immediate feelings and perception about themselves and each other in order to gain skill in authenti communication, leadership, behavioral flexibility, or social sensitivity

Shopwork – An activity emphasizing skill development through experience in woodwork, metal work, or other industrial processes and procedures.

Skill Practice Session – All activity in which pupils have opportunity to put into practice those skills and understandings previously learned through other instructional activities.

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[1] Johnson, S.R. and Johnson, R.B., Developing Individualized Instructional Material. Palo Alto, Calif.: Westinghouse, 1970.

SPECIAL TEACHING ACTIVITIES AND TECHNIQUES

A. *Reinforcement of Desired Behavior* - providing immediate and appropriate reinforcement following a behavior that is to be increased or strengthened.

- Use a token system, punch card, or green-stamp system to provide an on-going reward/reinforcement system.
- When teaching new skills, reinforce the learner's correct response on every occasion.
- Reinforce reasonable degrees of progress toward the final goal.
- To eliminate undesirable behaviors, competing or incompatible behaviors must be found and introduced. As these contending behaviors occur, the positive one(s) should be heavily reinforced.
- Certain behaviors can be changed simply by removing certain negative conditions or inhibitors. It is important to be aware of these factors and remove the ones necessary to expand and strengthen desired behaviors.
- After a behavior has become established, changing the reinforcement from a regular to variable-ratio schedule will assure its stability.

B. *Exercise* - opportunities to repeat and practice experiences in a variety of ways.

C. *Distributed Practice* - practice in learning concepts and most other material should be spread out, or varied according to the characteristics of each student as well as the nature of the material.

D. *Active Participation* - active involvement in a task readily facilitates learning, and has several advantages:

(1) it focuses the learner's attention on the task at hand,

(2) it fosters greater efficiency in learning,

(3) it provides a dynamic source of feedback, and

(4) it gives more opportunities for meaningful reinforcements for desired behavior.

E. *Overlearning* - practicing a task beyond the point of initial mastery. Improvement in learning, retention, transfer, and relearning will be facilitated by overlearning.

F. *Stressing Accuracy* - stressing accuracy instead of speed will reduce the chance of learners practicing errors. This is especially important in learning of new material and basic concept formation.

G. *Minimal Change* - shifts in concepts and instructional content focus should be as minimal as possible. Retention and continuity of generalization can be maintained if the progressive steps are small and blended together well.

H. *Utilizing the Learner's Strengths* - it is important to utilize the learner's strengths (e.g., manipulative skills) to enhance development of weaker areas (e.g., quantitative reasoning).

TYPES OF INSTRUCTIONAL MEDIA/MATERIALS[1]

MEDIA	PROBABLE LEARNING SENSATIONS					
	Vis.	Aud.	Tac.	Kin.	Ole.	Sav.
Demonstration with real objects/materials	x	x	x	x	x	x
3-D models - mockups	x	x	x	x	x	x
Games - Simulators	x	x	x	x	x	x
Sound/Slide Programs	x	x				
Filmstrip - Cassette/Record	x	x				
TV - Broadcast, Closed Circuit	x	x				
Video and/or Audio Recorder	x	x				
Film, 16mm - BW/Color, Sound	x	x				
Film loop, 8mm	x					
Filmstrip	x					
Slides	x					
Overhead transparencies	x					
Books, magazines, texts, booklets	x					
Pamphlets, brochures, manuals, workbooks	x					
Newspapers, cartoons	x					
2-D Displays, charts, graphs, posters	x					
Drawings, photographs, schematics, maps	x					
Opaque projectuals	x					
Telephone, intercom		x				
Other, specify						

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[1] Reynolds, M.L. et al. *Occupational Cluster Guides.* Mt. Pleasant: Vocational Education/Special Education Project, Central Michigan University, 1973.

APPENDIX E

INSTRUCTIONAL IMPLEMENTATION

Introduction

a. Analyzing Instructional Materials

b. Providing Reinforcement and Feedback

c. Modifying the Learning Environment

d. Planning and Coordinating Work Experience Programs

e. Case Study

INSTRUCTIONAL MATERIALS CHECKLIST

Directions: Commercially-produced or teacher-prepared materials can be evaluated using the review criteria listed below. Both occupational and special educators should assess the material prior to purchase or final revision (if teacher prepared).

Title:________________________________ **Evaluators:**______________________________

Media Type (film, book, etc.:)________________ ______________________________

Source:____________________________________ **Date:**______________________________

	Rating	Inappropriate
	Lo *Hi*	Criteria *(check)*
1. Is the instructional material potentially interesting for the learner(s) for whom it is intended?	1 2 3	________
2. Are the skills/knowledges/attitudes it will develop appropriate for the learner?	1 2 3	________
3. Are the skills/knowledges/attitudes it will develop consistent with the instructional objectives of the unit?	1 2 3	________
4. Does the material contain explicitly stated goals so that students and teachers alike will be able to evaluate their performance?	1 2 3	________
5. To what extent is the material controlled to provide the appropriate reinforcement for correct responses and near correct responses?	1 2 3	________
6. To what extent can students actively participate with the instructional material?	1 2 3	________
7. To what extent are the materials useful with both individuals and groups?	1 2 3	________
8. Are the directions for using the material too complex for teachers and/or learners to readily understand?	1 2 3	________

		Rating			Inappropriate Criteria *(check)*
		Lo		*Hi*	
9.	To what extent is the material flexible enough to permit additions, deletions, or modification of content?	1	2	3	________
10.	To what extent is the material portable and readily available from the distributor or manufacturer?	1	2	3	________
11.	To what extent has the material been pretested, pilot tested, and evaluated with different special needs populations?	1	2	3	________
12.	To what extent does the material permit the teacher to evaluate diagnostically a student's level of performance to determine where the learner should begin?	1	2	3	________
13.	Are there cost-benefit considerations to be made in using this material? Will the material produce results that outweigh the costs?	1	2	3	________
14.	Will the material have to be adapted to another media form (e.g., braille, enlarged print, etc.) for visually handicapped learners?	1	2	3	________
15.	Will the material have to be adapted to another media or format for orthopedically handicapped learners (e.g., self-instructional packages for homebound instruction)?	1	2	3	________
16.	Will the material have to be adapted to another media (e.g., cassette/audio tapes to print) for hearing impaired learners?	1	2	3	________
17.	Are the illustrations/pictures appropriate for special needs learners?	1	2	3	________
18.	Is the material sufficiently durable for classroom or lab use?	1	2	3	________
19.	Are sufficient and appropriate examples or applications used to realistically present the information?	1	2	3	________

ENVIRONMENTAL MODIFICATION WORKSHEET

Directions: For the special needs learner identified below, list the modification which are necessary to accommodate this learner in the identified occupational program.

Learner: Linda Occupational Program: Secretarial Practice

Occupational Instructor: Brenda Lane

Special Education Instructor: Sue Schafer

1. Modifications for Hearing Impairment:

   Obtain and use captioned film strip "Touch Typing". Purchase and install a light that will indicate when margin is about to be reached. Avoid using words that are difficult to lip read.

2. Modifications for Visual Impairment:

   None required.

3. Modifications for Orthopedic Impairment:

   None required.

4. Other Modifications:

   None required.

ENVIRONMENTAL MODIFICATION WORKSHEET

Directions: For the special needs learner identified below, list the modifications which are necessary to accommodate this learner in the identified occupational program.

Learner: ____________________ **Occupational Program:** ____________________

Occupational Instructor: ______________________________

Special Education Instructor: ______________________________

1. **Modifications for Hearing Impairment:**

2. **Modifications for Visual Impairment:**

3. **Modifications for Orthopedic Impairment:**

4. **Other Modifications:**

Rhonda: A Case Study

Rhonda is 15 years old and has been in the eighth grade for two years. Last year she was retained because her teachers and parent felt she was not prepared socially to handle high school. Although she has average abilities in nearly all areas, for the past two years (since her mother died) she has been somewhat emotionally insecure. During the first semester she was removed from two classes because of fighting and other disruptive acts. Presently, she is placed in Ms. Dooley's health careers orientation course, physical education, and in Ms. Jenkins' resource room for three hours daily. Ms. Jenkins works with her on recognizing and respecting the rights of others, accepting direction and supervision, and getting along with others.

Earlier in the year Ms. Dooley asked Ms. Jenkins to help her evaluate the text, reference materials, and lab manual which Rhonda uses in the health careers course. After applying a readability formula and another special education materials checklist which Ms. Jenkins uses, they decided that supplementary, low-level reading materials would have to be obtained to replace the main text which contains material approximately three grade levels above Rhonda's reading level.

Knowing that Rhonda would like to work part-time to have some personal spending money and help out with her family's finances, Ms. Jenkins discussed Rhonda's situation with Mr. Preston, the W.E.C.E.P. coordinator. After reviewing Rhonda's records, it appears that she will be eligible for placement in this federally-funded, part-time work experience program for potential drop-outs during the final quarter.

Rhonda's admittance to the W.E.C.E.P. program, however, depends upon her continued, improved performance in the health careers class and resource room. Ms. Jenkins and Ms. Dooley developed a contingency contract (which was also signed by Rhonda) indicating that before she would be placed in W.E.C.E.P. during the final quarter, she would: (1) attend all of her classes without an unexcused absence for six weeks, and (2) carry out all of her assignments without arguing.

APPENDIX F

LANCASTER WORKSHOPS
CENTRE COUNTY WORKSHOP

PROGRAM EVALUATION

Please evaluate the presentation you have just taken part in by checking the appropriate statement.

1. To what extent did the speaker(s) give you information which will help you in your work?

_____Much valuable information
_____Good information but not too useful in my situation
_____Very little information
Comments: ____
____

2. The visual aids were:

_____Non-existent
_____Good (very appropriate)
_____Only fair
_____Not effective
Comments: ____
____

3. The handout material was: (answer where appropriate)

_____Very useful
_____Might be useful
_____Not useful
Comments: ____
____

4. The interaction between speakers and the audience was:

_____Very effective
_____Ordinary
_____Very little interaction
Comments: ____
____

5. What would you suggest for the next Workshop? Answer ALL parts.

A. Topics to be discussed: ________________________________

____

B. Persons to participate: ________________________________

____

C. Changes in format or procedure: __________________________

____

6. Your position in education or your work is: (please check one)

Classroom/shop teacher _____

Administrator _____

Counselor _____

Other (Please specify) ______________________________________

7. Demographic: Optional

Sex: M___ F___ Age: _____

APPENDIX G

The Pennsylvania State University
Division of Occupational and
Vocational Studies
Fall Term, 1979

Vo Ed 413, Special Needs

L. Jay Thornton, Instructor
Objectives/Outline

Objectives

Educators in this course will:

1. Be aware of issues related to special needs learners and their instruction;
2. Be able to identify special needs learners and analyze their individual needs;
3. Be able to locate and use instructional resources for special needs learners;
4. Be able to use cluster and content analysis in the development of occupational training for special needs learners;
5. Be able to plan and sequence individual modules or units of instruction;
6. Be able to implement instructional programming for special needs learners;
7. Be able to evaluate the learners' program in the occupational training program.

Outline/Plan

Week I - Legislation, terminology and attitudes - Chapters 1,2,3,4, - Text.

Week II - Identification - Chapter 6 - Text.

Week III - Instructional Resources - Chapter 7 - Text.

Week IV - Career Cluster/Content Analysis - Chapter 8 - Text.

Week V - Planning Instruction - Chapter 10 - Text.

Week VI - Midterm Exam.

Week VII - Implementing Instruction - Chapter 12 - Text.

Week VIII - Evaluating Learner Progress - Chapter 13 - Text.

Week IX - Case Presentations - Handicapped.

Week X - Case Presentations - Disadvantaged.

APPENDIX H

SAMPLE CLOZE TESTS
PREPARED FOR DISTRIBUTION
AT CENTRE COUNTY AVTS

CLOZE TEST: MACHINE SHOP (7)

THE MAJOR PARTS OF THE HORIZONTAL-SPINDLE SURFACE GRINDER ARE DISCUSSED BELOW, BEGINNING WITH THE BASE AND PROCEEDING IN AN ORDER OF ASSEMBLY.

THE BASE OF THE HORIZONTAL SURFACE GRINDER HAS A ___1___ AT THE BACK FOR SUPPORTING THE WHEELHEAD. THE SADDLE ___2___ SUPPORTS THE TABLE IS MOUNTED ON CAREFULLY MACHINED WAYS ___3___ THE FRONT OF THE MACHINE.

THE TABLE ON MOST ___4___ IS SIMILAR TO THE TABLE ON THE MILLING MACHINE. ___5___ IS FITTED TO THE SADDLE BY CAREFULLY MACHINED WAYS. ___6___ CAN BE MOVED RIGHT OR LEFT (TRAVERSE TRAVEL) UNDER ___7___ GRINDING WHEEL. THIS KIND OF TABLE IS CALLED RECIPROCATING. ___8___ TABLE CARRIES ADJUSTABLE REVERSING DOGS WHICH MAY BE SET ___9___ LIMIT TABLE TRAVEL. HAND TABLE FEEDS CAN BE USED ___10___ WELL AS AUTOMATIC POWER FEEDS.

ON SOME MODULES, THE TABLE CAN BE MOVED IN OR OUT FROM THE VERTICAL COLUMN WHICH SUPPORTS THE WHEELHEAD.

SOURCE: Lascoe, O., Nelson, C., and Porter, H. *Machine Shop*. Chicago: A.T.S., 1977, Page 413.

CLOZE TEST: · UPHOLSTERING FOR EVERYONE (8 - 9)

MANY LARGE BACKS ARE THICKER AT THE BOTTOM THAN AT THE TOP. THIS MAKES BOXING OR BORDER WIDER AT THE ___1___ THAN AT THE TOP. BELOW ARMTOPS, COVER IS OFTEN ___2___ BY CUTTING THE GOODS ABOUT TWO INCHES LONG AND ___3___ A STRETCHER, PREFERABLY A COLOR SIMILAR TO THAT OF ___4___ COVER, TO REACH THE POINTS OF FINISHING AT THE ___5___. WIDTH OF BOXING MAY BE MEASURED FROM BACK TO ___6___ OR FROM TOP TO BOTTOM: IT DEPENDS ON WHERE ___7___ BOXING GOES AND ON HOW THE UPHOLSTERER WANTS THE ___8___ TO LIE. WHEN ONLY THE SIDES ARE BOXED, BOXING ___9___ IS SET WITH THE WEFT OF HORIZONTAL LINE OF ___10___ COVER PARALLEL TO THE FLOOR, OR WITH ITS PATTERN FOLLOWING THAT OF THE INSIDE BACK COVER. IF WEFT IS TO PARALLEL THE FLOOR, MEASURE GREATEST WIDTH OF BOXING BETWEEN LINES PERPENDICULAR TO THE FLOOR PASSING THROUGH THE REARMOST POINT AT THE TOP AND FOREMOST POINT AT THE BOTTOM.

SOURCE: Parker, Page, Fornia, J. G., and Fornia, Alice. Upholstering for Everyone. Reston, Virginia: Reston Publishing Company, 1976, Page 443.

CLOZE TEST
WELDING SKILLS AND PRACTICES (10)

STUD WELDING IS A FORM OF ELECTRIC ARC WELDING. TWO METHODS HAVE BEEN DEVELOPED, EACH WITH A DIFFERENT ___1___ OF OPERATION.

ONE OF THESE IS RECOGNIZED BY THE ___2___ OF A FLUX AND A CERAMIC GUIDE OR FERRULE. ___3___ CONSISTS OF A GUN, A TIMING DEVICE WHICH CONTROLS ___4___ DC WELDING CURRENT, THE SPECIALLY DESIGNED STUDS AND CERAMIC ___5___. STUDS ARE AVAILABLE IN A WIDE VARIETY OF SHAPES, ___6___, AND TYPES TO MEET A VARIETY OF PURPOSES. THESE ___7___ HAVE A RECESS IN THE WELDING END WHICH CONTAINS ___8___ FLUX. THIS FLUX ACTS AS AN ARC STABILIZER AND ___9___ DEOXIDIZING AGENT. AN INDIVIDUAL PORCELAIN FERRULE IS USED WITH ___10___ STUD WHEN WELDING. IT IS A MOST VITAL PART OF THE OPERATION IN THAT IT CONCENTRATES THE HEAT, ACTS (WITH THE FLUX) TO RESTRICT THE AIR FROM THE MOLTEN WELD, CONFINES THE MOLTEN METAL TO THE WELD AREA, SHIELDS THE GLARE OF THE ARC, AND PREVENTS CHARRING OF THE MATERIAL THROUGH WHICH THE STUD IS BEING WELDED.

SOURCE: Giachino, Joseph W. and Weeks, William. *Welding Skills and Practices*. Chicago, Il.: Am. Tech. Soc., 1976, Page 363.

CLOZE TEST
THE MEDICAL OFFICE ASSISTANT (11)

HOW TO TAKE THE RESPIRATION RATE. BECAUSE THE RESPIRATION RATE IS EASILY CONTROLLED, AND SINCE __1__ PATIENT WHO IS CONSCIOUS OF HIS BREATHING'S BEING WATCHED __2__ CONTROL IT TO SOME EXTENT, IT IS ADVISABLE TO __3__ THE RATE WHILE APPEARING TO BE INTERESTED IN SOMETHING __4__, SUCH AS THE PULSE RATE.

THE MEDICAL ASSISTANT MAY __5__ HER EYES ALTERNATELY ON THE PATIENT'S CHEST AND HER __6__ WHILE SHE IS COUNTING THE PULSE RATE, AND THEN __7__ TAKING HER FINGERS FROM THE PULSE, SHE CAN COUNT __8__ RESPIRATION RATE. IF THE PATIENT IS LYING DOWN, HIS __9__ CAN BE CROSSED OVER HIS CHEST SO THE RESPIRATIONS __10__ BE FELT WITH THE RISE AND FALL OF THE CHEST. COUNT THE RESPIRATIONS FOR A MINUTE AND RECORD.

SOURCE: FREDERICK, PORTIA M. AND KINN, MARY E. THE MEDICAL OFFICE ASSISTANT: ADMINISTRATIVE AND CLINICAL. PHILADELPHIA: W. B. SAUNDERS COMPANY, 1974, PAGE 526.

CLOZE TEST
ESSENTIALS OF CLINICAL DENTAL ASSISTING (12)

INSERTION AND CONDENSATION. COHESIVE GOLD IS MARKETED IN THREE BASIC FORMS: GOLD FOIL, MAT GOLD, AND POWDERED GOLD. EACH DENTIST ___1___ ONE FORM AND FINDS IT CONVENIENT TO USE. MANUFACTURERS ___2___ CONTAMINATE ALL THESE FORMS TO RENDER THEM NON-COHESIVE SO ___3___ THEY WILL NOT STICK TOGETHER IN THE CONTAINERS DURING ___4___ STORAGE AND HANDLING IN THE DENTAL OPERATORY. AMMONIA IS ___5___ MOST COMMON AGENT USED FOR THIS PURPOSE. IT ALSO ___6___ TO PREVENT OTHER CONTAMINANTS FROM ATTACHING PERMANENTLY TO THE ___7___ OF THE GOLD.

BEFORE GOLD IS INSERTED INTO ___8___ PREPARATION, IT MUST FIRST BE ANNEALED. ANNEALING IS THE ___9___ OF DEGASSING OR REMOVING THE AMMONIA AND ACCUMULATED CONTAMINANTS ___10___ THE SURFACE OF THE GOLD TO MAKE IT PURE AND COHESIVE. TWO POPULAR METHODS OF ANNEALING ARE HEATING THE GOLD ON AN ELECTRIC ANNEALER OR OVER THE OPEN FLAME OF A CLEAN ALCOHOL LAMP.

SOURCE: CHASTEEN, JOSEPH E. ESSENTIALS OF CLINICAL DENTAL ASSISTING. ST. LOUIS: THE C. V. MOSBY CO., 1975, PAGE 183.

APPENDIX I

READING: BASIC TO LITERACY OR A VOCATIONAL SKILL?

L. Jay Thornton

Instructor

Comprehensive Vocational Education

Prepared for Faculty Forum
College of Education
The Pennsylvania State University

Specialization has created different interests in the education community regarding teaching approaches, concerns, and priorities. However, there exists enough common ground among the specialities that, when a major subject area in any one becomes redefined, all are affected. "New Mathematics" was one such redefinition that caused waves, even polarization, among the education interests. The metrication of curricula, redefining standards of measurement, is presently another. Altering perspectives regarding these subjects has created complex problems. Perceptions about them may long be debated.

Another such major subject area, reading, may well become subject for redefinition and debate. Like math and standards of measurement, reading has been considered a prerequisite to most learning. If, however, it can be demonstrated that the capacity for learning it and the optimum time for teaching it are not related solely to a grade in school or a particular age, the customary Piagetan notion of placement in the elementary years may be challenged. If reading can be determined to be a skill, to be taught in conjunction with an occupational specialty, other education interests may wish to examine the relationship of reading to their specialties.

Is the ability to read math problems satisfied by the general reading taught in the elementary grades?

Is the ability to read special content material similarly satisfied?

Are the procedures for testing and measurement relevant to the skills necessary to read materials specifications, task instructions, or textbooks which deal with these subjects?

A "no" to any one of the preceding questions raises yet another question: With whom lies the responsibility to teach students to read? If performance of a task requires reading, will the vocational educator fulfill the obligation to the student by teaching the hands-on skill, assuming the commensurate reading ability was learned at the elementary level? The answer seems to be an obvious "no"; however, that is exactly what is being practiced.

The reasons for the practice, whether or not valid, are simple. The teaching of reading has long been considered a function of basic education, properly housed in the primary grades. Too often, it is believed to be necessary to confine it to the elementary years, to be concluded in that time frame. If not accomplished by the student while in grades one to six, reading becomes a subject failed; the student, one in need of remediation.

Because of the thought that there is a beginning and end to teaching reading, and because some vocational educators believe that academic responsibilities are separate from theirs, vocational teachers have been excluding reading from their curricula. A variety of constraints result from these notions.

Preliminary to a study to determine the levels of reading ability of high school carpentry students, in contrast to the readability of literature at the student and practitioner levels (Thornton, 1977), interviews with the instructors in the sample indicated the following beliefs:

(A) reading is a function of general education; not a responsibility of the vocational teacher;

(B) vocational students are not interested in reading about content subjects and will resist attempts to teach or encourage same;

(C) vocational students do not have to be able to read occupational literature; performance is contingent upon hands-on skill;

(D) there is insufficient time to introduce reading into the curriculum;

(E) reading instructions and remediation are too specialized for the vocational teacher.

The same study concluded that there is information contained in carpentry literature, necessary for the performance of carpentry tasks, available through no other means than reading it. Based upon skill, carpentry students will not be able to adapt to materials changes, changes in specifications, and the development of new projects methods (Thornton, 1977, p. 79). Content reading skills assessment and training procedures for carpentry students were recommended by the study.

Generally, reading is not considered a vocational skill, but there is a positive connection between the teaching of reading and vocational education. Section 195(16) of the Education Act of 1976 declares that "disadvantaged" means persons who have economic or academic disadvantages. Later, in the Rules and Regulations spelled out in the Federal Register, October, 1977, page 53864, academic disadvantage includes reading below grade level. Subpart 4, "Special Programs for the Disadvantaged," (Section 140(a)), provides for funding.

Reading ability legislation would not be pertinent to the issue if it had been contained in sections of the Act dealing with general education. That it is found under the Vocational Education Title illustrates intent that reading is to be addressed by vocational educators. Thus, meeting the reading needs of students is a function of vocational education, contrary to "belief A" of the Thornton study.

Watching a student study Motor's Auto Repair Manual is sufficient to overcome "belief B". (It can also be argued that perhaps it is the subject in which the student is not interested, not reading about it.)

"Belief C" was handled by the conclusion of the study; "Belief D" is simply no excuse.

Teaching reading and reading remediation have become highly specialized. It is true that the specialization may be beyond the vocational teacher, but that does not prohibit teaching. There are things that a vocational teacher can do to treat reading as a skill instead of a basis for literacy. The kinds of things might be called strategies.

"The Effect of Teacher Intervention Strategies On Poor Readers' Comprehension of Technical Matter in A Technical-Vocational School" (Sloan and Pearson, 1978) was the subject of a recent study which clearly stated the issues. "The issue whether or not (vocational) courses should include materials which place a premium on literacy is not in question. The facts are that many of them do and that students in such courses have difficulty handling these materials" (p. 9).

The study investigated possible approaches to the problem and found that those students treated did better than a control group (regarding literal comprehension and vocabulary.) The treatments included reworking the literature to lower the readability level; pre-instruction in vocabulary and content; guided instruction (insertion of questions throughout the literature); post-instruction (questions at the end); and audio-tape playback.

How each of these strategies was employed and which was more effective are not important to this consideration. That there was a measure of success is the point.

It is most comfortable to expect all literacy prerequisites to be met by students before entering vocational programs. Furthermore, vocational educators are not going to look kindly on expanding their curricula to teach a skill formerly redarded as outside their bailiwick. Despite this, all educators must attack reading as it applies to their specialties, whether higher education, special education, vocational education, or one of industrial, agriculture or home economics. [So it is, regardless of their desire to do so.]

Comprehensive vocational education has an opportunity to develop new approaches to this long present, but recently recognized, problem; the legislated funding to see it through. The entire education community should monitor its progress and offer insight into its planning.

REFERENCES

Sloan, Margaret and Pearson, P. David. The Effects of Teacher Intervention Strategies On Poor Readers' Comprehension of Technical Matter in A Technical-Vocational School. *The Journal of Vocational Education Research*. III: 1 (Winter, 1978), pp. 9-19.

Thornton Larry Jay. *Relationship of Readability of Carpentry Material Installation Instructions and Carpentry Textbooks To Reading Ability of High School Carpentry Students*. Master's thesis, State University of New York, College of Technology, 1977.

APPENDIX J

SAMPLE CLOZE PROCEDURE

PREPARED FOR CENTRE COUNTY AVTS TEACHERS

BY

L. JAY THORNTON, SPECIAL NEEDS PROJECT DIRECTOR

INSTRUCTIONS

CONSTRUCTION:

1. SELECT A REPRESENTATIVE PASSAGE FROM YOUR CLASS TEXT OF APPROXIMATELY 150 WORDS. (THE AMOUNT WILL VARY ACCORDING TO THE NUMBER OF DELETIONS IN THE TEXT. ALWAYS PROVIDE FOR A COMPLETE BEGINNING AND ENDING SENTENCE.)
2. TYPE THE FIRST SENTENCE INTACT.
3. BEGINNING WITH THE SECOND SENTENCE, DELETE EVERY TENTH WORD. USE A 10-SPACE LINE IN PLACE OF THE DELETED WORD. NUMBER EACH DELETION IN THE CENTER OF THE 10-SPACE LINE.
4. FOR EASE OF SCORING MAKE DELETIONS IN MULTIPLES OF 10 (E.G., 10, 20, 30, 40, ETC.).
5. LEAVE THE LAST SENTENCE INTACT.

ADMINISTRATION:

1. PRIOR TO GIVING THE TEST, DEMONSTRATE HOW TO TAKE THE TEST.
2. USING AN OVERHEAD PROJECTOR, PRESENT A SHORT PASSAGE OF THREE OR FOUR SENTENCES WITH EVERY TENTH WORD DELETED.
3. HAVE THE CLASS FILL IN THE DELETIONS ORALLY. EXPLAIN THAT WHILE MORE THAN ONE WORD COULD BE USED, ONLY THE EXACT REPLACEMENTS WILL BE ACCEPTED ON THIS TEST.
4. ANSWER ANY QUESTIONS.

SCORING: 60% AND HIGHER - INDEPENDENT LEVEL; 40%-60% - INSTRUCTIONAL LEVEL; BELOW 40% - FRUSTRATION LEVEL.

MACHINE SHOP OPERATING AND SETUPS - MILLING OPERATIONS

COMPENSATION FOR BACKLASH. THE OPERATOR OF THE MACHINE MUST REMEMBER THAT BACKLASH ENTERS INTO THE ADJUSTMENT OF THE CONTROLS FOR THE TABLE. BACKLASH IS THE LACK OF MOTION OR LOST MOTION ____1____ THE ROTATION OF A SCREW IN A NUT IS ____2____ FROM CLOCKWISE TO COUNTER-CLOCKWISE. IN ADJUSTING THE POSITION OF ____3____ TABLE, FOR EXAMPLE, THE SCREW MAKES A PARTIAL TURN (____4____ BACKLASH), DURING WHICH THE SADDLE DOES NOT MOVE. TO ____5____ FOR THIS LOSS OF MOVEMENT, EASILY MEASURED ON THE ____6____ DIALS IN THOUSANDTHS, TURN THE HANDLE ABOUT ONE-HALF TURN ____7____ THE DIRECTION OPPOSITE THE PROPOSED ADJUSTMENT. THEN TURN THE ____8____ TO BRING THE WORK TO THE POINT FROM WHICH ____9____ SETTINGS IN THE SAME DIRECTION ARE TO BE MADE.

____10____ STOPS. ADJUSTABLE STOPS ALONG THE LENGTH OF THE TABLE SERVE AS AUTOMATIC TRIPS.

(FROM THE TEXT: MACHINE SHOP OPERATIONS AND SETUPS, 4TH EDITION, BY ORVILLE D. LASCOE, CLYDE A. NELSON, AND HAROLD W. PORTER, AMERICAN TECHNICAL SOCIETY, CHICAGO, IL., 1977.)

TO THE TEACHER

NOTE: THE ABOVE SAMPLE CLOZE TEST UTILIZES TEN RESPONSES FOR EASE OF SCORING. THIS IS THE MINIMUM NUMBER OF RESPONSES THAT SHOULD BE USED IN THIS TYPE TEST. THE VALIDITY OF THE RESULTS IS GREATER IF A LARGER NUMBER OF RESPONSES IS POSSIBLE. THUS, IT IS RECOMMENDED THAT THE TEN-RESPONSE TEST BE USED ONLY FOR AN INDICATOR IN THE PRETEST SITUATION. IF THE CLOZE TEST IS TO BE USED FOR

OTHER PURPOSES, SUCH AS A POSTTEST EVALUATION OF COMPETENCY IN READING OCCUPATIONAL LITERATURE, A 50-RESPONSE TEST SHOULD BE EMPLOYED.

ANSWER SHEET

MACHINE SHOP OPERATIONS AND SETUPS - MILLING OPERATIONS, CLOZE TEST

1. WHEN
2. CHANGED
3. THE
4. THE
5. COMPENSATE
6. GRADUATED
7. IN
8. HANDLE
9. SUBSEQUENT
10. ADJUSTING

(TRANSPARENCY)

SAMPLE CLOZE TEST - MACHINE SHOP OPERATIONS AND SETUPS

THE SUCCESSFUL MILLING OF A WORKPIECE DEPENDS TO A LARGE EXTENT ON THE PROPER SETUP OF TOOL AND WORKPIECE. WRONG SELECTION OF CUTTERS, LACK OF RIGIDITY IN THE ____1____ AND IMPROPER CHOICE OF SPEEDS AND FEEDS WILL RESULT ____2____ POORLY MATCHED SURFACES ON THE WORKPIECE. TO AVOID THE ____3____ ERRORS, SUGGESTIONS ARE PRESENTED THROUGHOUT THE REST OF THE ____4____ WHICH ARE INTENDED TO HELP THE STUDENT "THINK THROUGH" ____5____ PROPER SETUPS AND OPERATIONS FOR A VARIETY OF JOBS.

THE STUDENT IS AGAIN URGED TO REVIEW THE MILLING MACHINE TRANSVISION.

ANSWERS:

1. SETUP
2. IN
3. ABOVE
4. CHAPTER
5. THE

APPENDIX K

Teaching Special Needs Students

Edited by:

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A Series of Articles Reprinted From:

The Magazine for Industrial Arts, Vocational and Occupational Education

INDUSTRIAL EDUCATION

May, 1978

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APPENDIX L

The Pennsylvania State University
Division of Occupational and
Vocational Studies
Department of Vocational-Industrial
Education

Vocational-Industrial Ed. 296av
Independent Study
L. Jay Thornton, Instructor

MODIFYING AND ADAPTING INSTRUCTION FOR SPECIAL NEEDS LEARNERS

Spring Term, 1979

Course Requirements

Modules 1 and 2

Modifying Instructional Objectives
Modifying and Adapting Instructions for Special Needs Learners

Text: Robert F. Mager, Preparing Instructional Objectives

Course Plan:

Module	Objective	Postmark Due Date	Received by Due Date
1	1	3-16-79	3-20-79
1	2	No assignment for submission	
1	3	3-23-79	3-37-79
1	4	3-30-79	4-3-79
1	5	No assignment for submission	
1	6	4-6-79	4-10-79
2	3	4-13-79	4-17-79
2	4	4-20-79	4-24-79
2	5	4-27-79	5-1-79
2	6	5-4-79	5-8-79
2	7	5-11-79	5-15-79

Each assignment will carry a value of (10) ten points. An additional (10) ten points will be reserved for overall quality. Late assignments will be automatically devalued by (1) one point. You may submit assignments early according to your own pace and schedule.

Send assignments to:

L. Jay Thornton, Instructor
Division of Occupational and Vocational Studies
113 Rackley Building
University Park, PA 16802

University Park Office Hours:

Mon. - Wed. 3:00 p.m. - 4:00 p.m.
Tues. - Thurs. - Fri. 9:00 a.m. - 10:30 a.m.
Monday evening 6:30 p.m. - 8:00 p.m.
Telephone: 814-865-8361

Consultation Dates - Troy

April 2, 1979
May 7, 1979

Times for these sessions should be arranged in advance with the instructor.

Directions:

1. Read all directions before starting the Module.
2. Read the Introduction Carefully.
3. Read the Performance Objectives for the Module.
4. No preassessment is provided for this module. Proceed immediately to the Introduction.

Terminal Objectives:

Student Will:

1. Task analyze a unit of instruction. Included in the task analysis:

   Job Description

   Task Listing (general)

   Task Detailing (general)

   Identification of spin-off levels for entry level jobs.

2. Construct a performance objective according to the criteria given in:

   Robert F. Mager. Preparing Instructional Objectives.

3. Construct ten performance objectives for the unit they have chosen, according to the criteria given in:

   Robert F. Mager. Preparing Instructional Objectives.

4. Task analyze a unit of instruction for three levels of learners (slow, average, and fast).

5. Differentiate between objectives which are appropriate for normal learners versus learners with special needs.

6. Write performance objectives for a unit of instruction to meet the needs of all levels learners.

Objective One:

Student will Task Analyze a Unit of Instruction. Included in the Task Analysis should be:

1. Job Description
2. Task Listing (General)
3. Task Detailing (General)
4. Identification of spin-off levels for entry level jobs.

Activities:

1. Read the Information Sheet, "Job Description and Task Analysis" (Page 10).
2. Read the Information Sheet, "Job Site Analysis" (Page 28).
3. Complete a Job Site Analysis (See Page 30).
4. Task analyze your unit of instruction.

Activity 3, Obj. 1.

Complete a Job Site Analysis

Directions:

Analyze the actual characteristics, requirements, and duties of the job you have scheduled for your unit of instruction. Make a list of the places in your community where the job you have chosen is performed; then choose one job site and conduct an interview with the employer performing that job, as well as his supervisor.

Complete the Analysis using the format given in Activity 3, Obj. 1. (Page 30).

Sample:

Job Title: Service Station Attendant

Name of Firm: Pike Exxon

Name of Employee Interviewed: John Does

Name of Supervisor Interviewed: Kim Kelly

A. Description: John Does waited on three customers during my visit. I observed him pumping gas and taking the customer's money. He also checked the oil on two cars, cleaned the windshield on each car, checked the air pressure on one tire, and filled the window washer solution on one car.

B. How to:
greet a customer
operate gas pump
identify currency
make change
locate oil dip stick and remove
read oil dip stick markings
replace oil dip stick in correct area
clean windshield

operate a tire pressure gauge
remove valve stem on tire
operate tire pump
locate window washer reservoir
remove cap of window washer reservoir
identify the correct solution for window washing
pour fluid into washer reservoir

1. Mathematical Applications	Employee	Supervisor
A. Adding	frequent (daily)	frequently used
B. Subtraction	frequent (daily)	frequently used
C. Multiplication	seldom	rarely used
D. Division	seldom	rarely used
E. Simple fractions	seldom(never)	rarely or never used

Activity 4, Objective 1.

Task analyze your unit of instruction.

(see samples given in Activity 1, Objective 1, Information Sheet).

Objective Two:

STUDENT WILL CONSTRUCT A PERFORMANCE OBJECTIVE ACCORDING TO THE CRITERIA GIVEN IN: Robert F. Mager. *Preparing Instructional Objectives*. Palo Alto, California: Fearon Publisher, Inc., 1962.

Activities:

1. Complete the pretest found on page 39.
2. Read the text.

   Robert F. Mager. *Preparing Instructional Objectives.*
   Palo Alto, California: Fearon Publishers, Inc., 1962.

3. Complete the Self Check on page 41.

ACTIVITY # 1, Obj. 2

PRETEST PERFORMANCE OBJECTIVES

Do the following statements include performances? (circle one)

1. Understand the principles of salesmanship. Yes No
2. Be able to write three examples of the logical fallacy of the undistributed middle. Yes No
3. Be able to understand the emaning of Ohm's Law. Yes No
4. Be able to name the bones of the body. Yes No
5. Know the needs for nursing care associated with the stresses of life situations and with common aspects of illness Yes No
6. Be able to identify objectives that include a statement of desired performance. Yes No
7. Appreciate the ability of others, and perform as an intelligent spectator. Yes No
8. Be able to describe the indications for the use of a pacemaker. Yes No
9. Demonstrate a knowledge of the principles of magnetism. Yes No
10. Be able to write an essay on evolution. Yes No
11. Using any reference materials, be able to name correctly every item shown on each of twenty blueprints. Yes No
12. Be able to write a description of the steps involved in making a blueprint. Yes No
13. Be able to know well the cardinal rules of grammar. Yes No
14. Given an oral description of the events involved in an accident, be able to fill out a standard accident report. Yes No
15. Be able to develop logical approaches in the solution of personnel problems. Yes No

*** SEE INSTRUCTOR FOR CORRECT RESPONSES.

Activity # 2, Obj. 2

Read the text: Preparing Instructional Objectives, by Robert F. Mager.

Activity # 3, Obj. 2

SELF-CHECK

IDENTIFYING CONDITIONS AND CRITERIA STATEMENTS

Part I:

In the following statements underline the condition statement with a single line and the criteria statement with a double line.

1. Transcribe a business letter from the shorthand provided with only one error.
2. Using a vacuum gauge, set the timing on any engine in accordance with the manufacturer's specifications for that engine.
3. Given an assembly drawing, identify and correctly translate all welding symbols used in accordance with military standards.
4. The student will bake four loaves of bread, using the ingredients supplied, of the quality for resale, as judged by the instructor.
5. Given an unfinished metal casting, be able to surface, drill, and tap, according to the specifications indicated on the attached blueprint.*
6. Given a list of technical terms, commonly used in nursing, match them to the definitions given, with 8 out of 10 being matched correctly.*
7. Provided with an outdoor TV antenna bit and appropriate tools, be able to install the antenna according to trade

standards, making sure the resulting TV picture is free of snow.*

8. The student will type a business letter on an electric typewriter from transcribed notes with 100% accuracy and no erasures.
9. The student will be able to write a list of materials and tools needed to prepare a Surface, up to and including spray gun. Any twelve out of a possible fifteen will be accepted.

Activity # 3, Obj. 2

Part II:

Place an X before any of the following instructional objectives that are properly stated.

_____1. The student will grasp the significance of the Treaty of Versailles.

_____2. The student will have an attitude favorable to English grammar indicated by his response to a questionnaire.

_____3. The student will know six verbs.

_____4. The student will learn the names of the common tools in wood shop.

_____5. The teacher will list three major causes of the Civil War on the chalkboard.

_____6. The student will know the important battles of World War I.

_____7. The student will prefer cooking to sewing.

_____8. The student will be able to correctly thread a sewing machine.

_____9. The student will pay attention as the teacher demonstrates the use of the lathe.

____10. The student will be able to develop a sense of the cultural unity of man.

____11. The student will list and describe the themes of four of Shelley's poems.

____12. The teacher will describe with understanding five concepts treated in the text.

____13. The student will correctly solve all of the story problems presented.

____14. The student will accurately learn the best-known works of Voltaire.

____15. The teacher will help the class to solve algebra problems correctly.

____16. The student will appreciate the key importance of algebraic approaches.

____17. The student will include 10 supporting facts in a written persuasive paragraph.

____18. The student will become familiar with an essay by using no reference but personal experience.

Mager & Beach, 1977

*** SEE INSTRUCTOR FOR CORRECT RESPONSES.

OBJECTIVE three:

Student will construct 10 performance objectives for the unit of instruction they have chosen (e.g., Auto mechanics, brakes, etc.).

Activities

1. Write ten objectives appropriate for the unit of instruction and submit them to the instructor. Each objective must include performance, criteria, and condition.

SAMPLE

Unit: Auto Mechanics

Topic: Cooling System

Objectives:

(1) Given a 1976 Buick, the student will remove and replace the V belts in fifteen minutes.

(2) Given a 1976 Buick, the student will remove the radiator hose with 100% accuracy according to the specifications of the maintenance repair manual.

(3) Given a 1976 Buick, the student will remove and replace the thermostat in one-half hour with 100% accuracy, according to the specifications of the maintenance repair manual.

(4) (etc.)

OBJECTIVE Four:

Student will task analyze a unit of instruction for three levels of learners (slow, average, and fast).

Activities:

1. Read the Information Sheet, "Task Analysis, for Special Needs Students," found on page 45.
2. Review the examples on page 47.
3. Complete a task analysis on the unit you have chosen for three levels of learners.

Activity # 3, Obj. 4

Task analyze your unit of instruction for three levels of learners; slow, average, and fast. Included should be:

Task analysis (see sample on previous page).

Task detailing (refer to objective 1, Activity 1, pages 8-19).

Job description (refer to objective 1, Activity 2, page 10 for each level of learner).

OBJECTIVE Five:

Student will differentiate between objectives which are appropriate for normal learners versus learners with special needs.

Activities:

1. Read the Information Sheet, "Preparation of Objectives for Slow Learners", found on page 50 .
2. Review the examples and explanations on pages 58-59.
3. Complete the Self-check on page 60.

Activity 3, Obj. 5

SELF-CHECK

Directions:

Please place an X on the line you feel is most appropriate of each level of learner. Explain your responses on the back. See the instructor for correct responses.

Student will:	Slow Learner	Average	Fast Learner
1. write an essay on how the parts of an engine function	______	______	______
2. identify the proper wrench used to adjust spark plugs	______	______	______
3. write the purpose of the cooling system	______	______	______
4. define in writing nine terms associated with the cooling system	______	______	______
5. identify the types of thermostats	______	______	______
6. describe orally the operation of the thermostat	______	______	______
7. list three jobs that the cooling system must perform	______	______	______
8. describe two methods of cooling internal combustion engines	______	______	______
9. remove and replace spark plugs	______	______	______
10. test antifreeze solution	______	______	______
11. define, in writing, torque	______	______	______
12. locate the human pulse points	______	______	______
13. discuss the purpose of a social security number	______	______	______
14. list five safety rules for operating a drill press	______	______	______

Activity 3, Obj. 5 (cont'd)	Slow Learners	Average	Fast Learners
15. tighten six different belts, using the appropriate wrenches			
16. recognize eight out of ten common tools used in M________			
17. write Ohm's law			
18. read a set of blueprint specifications			
19. draw a blueprint from memory			
20. interpret an EKG reading			
21. write the Theory of Electronic Covalence			
22. assess the accuracy of a thread pitch			
23. evaluate the costs and benefits of constructing a small warehouse			
24. design a residential wiring plan			
25. lift 50-pound bags of cement and move them to the loading dock			
26. draft an interoffice memo			
27. define in writing the use of a blood pressure apparatus			
28. list the bones of the body			
29. analyze the elements of a floor plan			
30. estimate the tolerance required in a slip fit			

OBJECTIVE Six:

Student will write performance objectives to meet the needs of all levels of learners for the unit of instruction he/she chose at the beginning of this Module. Each objective must include performance, criteria, and conditions.

Activities:

1. Using your unit of instruction, write the performance objectives for each level of learner (slow, average, or fast) according to the guidelines given on page 50, and submit them to the instructor.

MODULE TWO

I. Ed. 296av: Modifying and Adapting Instruction for Special Needs Learners

Spring Term, 1979

L. Jay Thornton, Instructor

The Pennsylvania State University
Division of Occupational and Vocational Studies

Objective 3
Learning Activity # 6
Assessment Task

Design three lesson plans for a unit of instruction. Identify the Provisions made for more than-one cognitive level of learner in the same class.

MODULE TWO: SECTION TWO

Objectives 5, 6, 7
I. Ed. 296av: Modifying and Adapting
Instructions for Special Needs Learners
Spring Term, 1979
L. Jay Thornton, Instructor

The Pennsylvania State University
Division of Occupational and Vocational Studies

TERMINAL OBJECTIVE FIVE

Student will submit three alternative methods of delivery for a given unit of instruction (i.e., filmstrip, 16mm movie, learning lab, etc.). Included should be a discussion of its purpose, projected use, outcomes, pros and cons.

LEARNING ACTIVITIES:

1. Read the article, "T & I For The Handicapped - You've Got To Be Kidding," by Pellegrino.
2. Discuss in writing the major points of each article.
3. Read the Information Sheet, "Presentation" on page 136 .
4. Read the Information Sheet, "Applying Learning Principles," on page 141 .
5. Read the Information Sheet, "Guidelines for Selection of Appropriate Learning Activities," on page 144 .
6. Read the Information Sheet, "Small Group Instruction," on page 145 .
7. Read the Information Sheet, "Guidelines for Audio Visual Learning Materials," on page 152 .
8. Read the Information Sheet, "Individualizing Instruction," on page 153 .

* 9. Prepare three alternative methods of delivery for a given unit of instruction. Include a discussion of its purpose, projected use, outcomes, pros and cons.

Learning Activity # 2
Assessment Task 1
Objective 5

Discuss in writing the major points of the article in Learning Activity 1:

"T & I For The Handicapped - You've Got To Be Kidding."

DO FOR EXTRA CREDIT, IF YOU LIKE, BUT NOT FOR THE SUBMITTED ASSIGNMENT.

Learning Activity # 9
Objective 5
Assessment Task 2

Prepare three alternative methods of delivery for a given unit of instruction. Include a discussion of its purpose, projected use, outcomes, pros and cons.

TERMINAL OBJECTIVE Six

Student will discuss in writing his/her plan for development of an instructional feedback system in their classroom.

LEARNING ACTIVITIES:

1. Read the Information Sheet, "Instructional Feedback," page 176.
2. Prepare a discussion for an instructional feedback system in your classroom.

Objective 6
Learning Activity # 2
Assessment Task

Prepare a discussion of an instruction feedback system in your classroom.

TERMINAL OBJECTIVE Seven

Student will design the following instructional recording systems:

A. A Class wall chart for a Unit of Instruction.

B. Job Assignment Sheets for a Unit of Instruction.

C. Individual Student Competency Sheet for his/her course.

LEARNING ACTIVITIES:

1. Read the Information Sheet, "Organizing Instruction in the Auto Shop."
2. Review and study the examples on page 195 .
3. Prepare a class wall chart and job assignment sheet for a unit of instruction. Also prepare a competency sheet for your course.

Objective 7
Learning Activity # 3
Assessment Task

Student will design the following instructional recording systems:

1. Class Wall Chart for a unit of instruction.
2. Job Assignment Sheets for a unit of instruction.
3. Individual Student Competency Sheet for his/her course.

   Indicate possible spin-off levels for Entry Level Jobs.

APPENDIX M

STUDENT EVALUATION

I. Ed. 296av - Independent Study

Spring Term, 1979

Scale: 4 - Excellent 3 - Very Good 2 - Good 1 - Fair 0 - Poor

						Mean Response
1. Materials in modules were clear and understandable.	4	3	2	1	0	3.0
2. Assignments were relevant to information presented.	4	3	2	1	0	2.8

The Modules were presented in four sections -- please rate the Usefulness to you of the Content of each module.

3. Module 1, Section 1.	4	3	2	1	0	2.7
4. Module 1, Section 2.	4	3	2	1	0	2.8
5. Module 2, Section 1.	4	3	2	1	0	2.8
6. Module 2, Section 2.	4	3	2	1	0	2.9
7. Helpfulness of the Presentations/Discussion periods.	4	3	2	1	0	3.1
8. Instructor's comments on assignments were	4	3	2	1	0	3.3
9. Instructor's availability to students was	4	3	2	1	0	3.44
10. Instructor's grading (in terms of fairness) was	4	3	2	1	0	3.3
11. Your overall rating of this Independent Study course.	4	3	2	1	0	3.0

12. Please briefly summarize your reactions to this experience. Was it useful? If so, in what ways? If not, why not?

Yes, it was useful. Helps me to better deal with the situations.

Helped to recognize the fact that it was possible to deal with the different learning levels of students at one time within the same class.

Clearer understanding of different levels of learning and how to reach each type of learner. Need more on special needs techniques.

It provided me with a clearer way to present my program to these students.

Useful in dealing with different level students.

Useful, yes.

For me it gave new insight in the teaching, learning process - very useful, very enjoyable.

Helped me to understand and write objectives so they can be understood and performed.

It made me re-evaluate my teaching in terms of objectives and goals.

It was very useful, helping one to realize the different type students we are working with. We sometimes have a tendency to forget.

Additional Comments:

Modules could be condensed.

Would have been helpful to have some case studies.

Need more emphasis on fact that fast students have needs.

Discussions were most helpful.

Helpful information was provided regarding teaching of handicapped students.

APPENDIX N

Form RE-1
2/21/79

STUDENT EVALUATION OF INSTRUCTOR

Division of Occupational and Vocational Studies

Course [illegible] Instructor [illegible]

Your Major [illegible] Term [illegible]

The purpose of this questionnaire is to evaluate the faculty member as a teacher -- how well he or she as a person communicates knowledge to you. The questionnaire is not intended for evaluation of subject matter content of the course.

The scale to be used is:

4 EXCELLENT; 3 VERY GOOD; 2 GOOD; 1 FAIR; 0 POOR

Circle the rating (4, 3, 2, 1, 0) which you feel is most appropriate for each of the items.

						Mean Response
1. The instructor's ability to present the material clearly was:	4	3	2	1	0	3.50
2. The instructor's apparent knowledge of the subject was:	4	3	2	1	0	4.0
3. His/Her enthusiasm for teaching was:	4	3	2	1	0	3.88
4. His/Her use of teaching aids was:	4	3	2	1	0	3.0
5. The instructor's use of examples and illustrates to clarify the subject for you was:	4	3	2	1	0	3.38
6. The instructor's identification of the major points was:	4	3	2	1	0	3.75
7. His/Her ability to encourage students to think was:	4	3	2	1	0	3.88
8. His/Her ability to stimulate questions and discussions was:	4	3	2	1	0	3.63
9. His/Her willingness to answer questions was:	4	3	2	1	0	3.63
10. His/Her respect for students as persons was:	4	3	2	1	0	4.0

							Mean Response
11.	His/Her preparation for class was:	4	3	2	1	0	3.75
12.	His/Her availability to students was:	4	3	2	1	0	3.5
13.	His/Her grading (in terms of fairness) is:	4	3	2	1	0	3.38
14.	Your overall rating of the instructor was:	4	3	2	1	0	3.88

15. Does the instructor have any objectionable mannerisms: Yes 0 No 8
If yes, what are they:

____

____

____

16. Additional Comments:

I feel that I learned a great deal in the course and would recommend it to others.

Good class - I learned a lot in regard to the class material.

Very informative course. Quite thought provoking.

Articulate - well versed in subject - patient - helpful and dedicated in doing an outstanding job - need more like him.

The course was good because it was done under a non-pressure situation. This is a very good learning situation.

Would like some course to help students with math problems - we have a lot of students who do not know basic math.

Interesting class.

Form RE-1
2/21/79

STUDENT EVALUATION OF INSTRUCTOR

Division of Occupational and Vocational Studies

Course READING SENSITIVITY Instructor THORNTON

Your Major LANCASTER IED 497cv Term SPRING, 1979

The purpose of this questionnaire is to evaluate the faculty member as a teacher -- how well he or she as a person communicates knowledge to you. The questionnaire is not intended for evaluation of subject matter content of the course.

The scale to be used is:

4 EXCELLENT; 3 VERY GOOD; 2 GOOD; 1 FAIR; 0 POOR

Circle the rating (4, 3, 2, 1, 0) which you feel is most appropriate for each of the items.

						Mean Response
1. The instructor's ability to present the material clearly was:	4	3	2	1	0	3.20
2. The instructor's apparent knowledge of the subject was:	4	3	2	1	0	3.60
3. His/Her enthusiasm for teaching was:	4	3	2	1	0	3.50
4. His/Her use of teaching aids was:	4	3	2	1	0	2.60
5. The instructor's use of examples and illustrations to clarify the subject for you was:	4	3	2	1	0	2.70
6. The instructor's identification of the major points was:	4	3	2	1	0	3.40
7. His/Her ability to encourage students to think was:	4	3	2	1	0	3.20
8. His/Her ability to stimulate questions and discussion was:	4	3	2	1	0	2.90
9. His/Her willingness to answer questions was:	4	3	2	1	0	3.80
10. His/Her respect for students as persons was:	4	3	2	1	0	3.80

							Mean Response
11.	His/Her preparation for class was:	4	3	2	1	0	3.50
12.	His/Her availability to students was:	4	3	2	1	0	3.70
13.	His/Her grading (in terms of fairness) was:	4	3	2	1	0	3.70
14.	Your overall rating of the instructor was:	4	3	2	1	0	3.50

15. Does the instructor have any objectionable mannerisms: Yes___ No_x_
If yes, what are they:

16. Additional Comments: Seems to be dedicated to his role; and conscious of the need for reading sensitivity. Quite an enlightening course.

A little more time spent on the major important areas, less on practice pulling out nouns, verbs, etc.

An interesting course that will be helpful in the classroom.

I was able to view some of my problem students differently because of this course. Many of my students can't read at all.

I feel I have learned more out of this course and instructor than any other ever taken - and it will be useful to me and my students.

APPENDIX O

LANCASTER AVTS IN-SERVICE DAY

March 19, 1979

L. Jay Thornton, Special Needs Project Director

8:30 A.M.	Introduction and Preliminary Remarks
	Harrisburg Update
	Mainstreaming
	Disadvantaged Game
10:00 A.M.	Break
	Study in the Combat Zone - A Lancaster Exclusive
	Reading Sensitivity for Vocational Teachers (A course, of course)
12:00 Noon	Lunch
1:00 P.M.	Reading, Math Intervention
	Jobs - P.L. 95-600 - Jobs
	Film: "A Different Approach"
	Evaluation
3:00 P.M.	Adjourn - Call It A Day - Goodbye

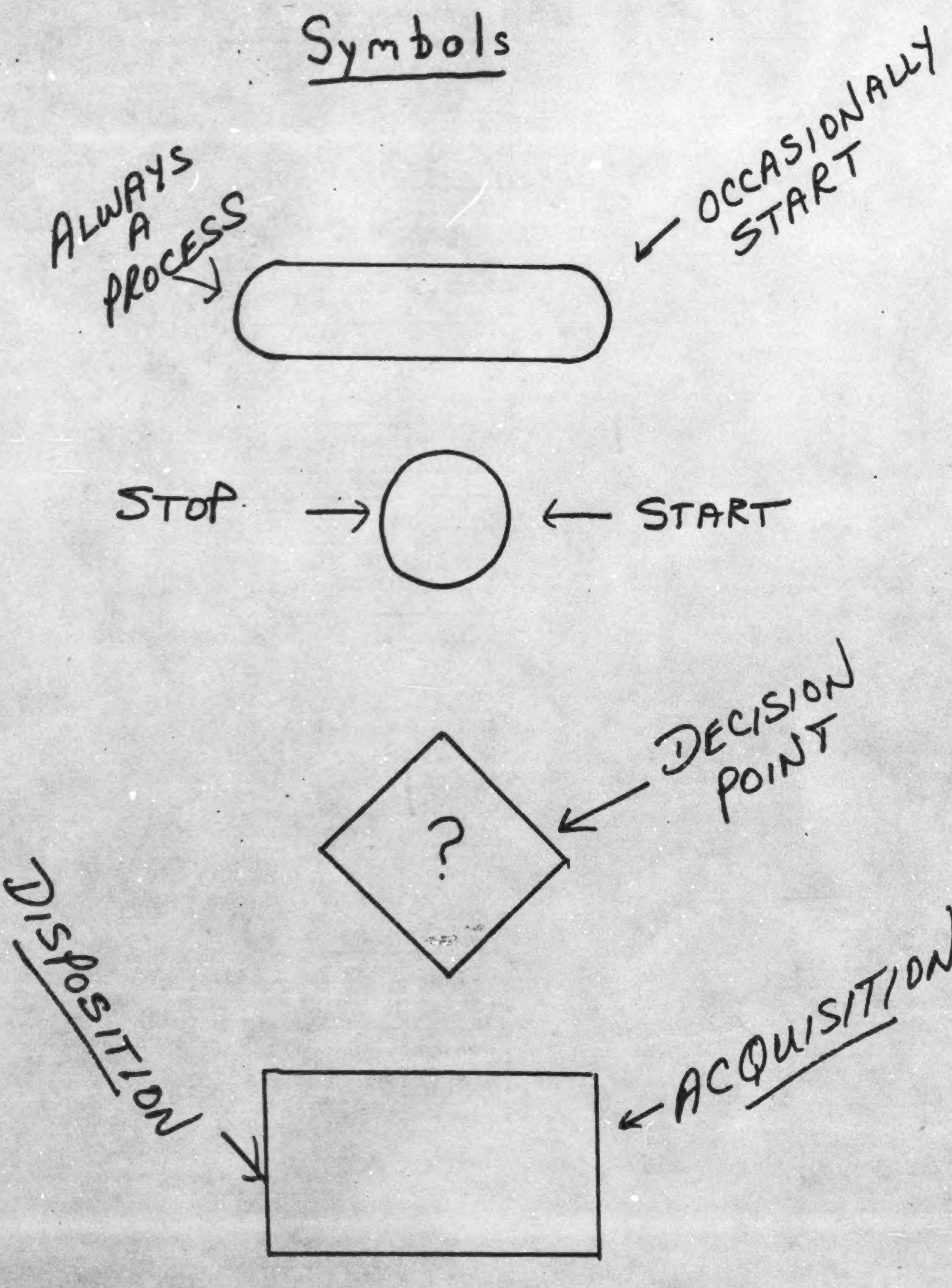
APPENDIX P

"A LANCASTER County Exclusive"

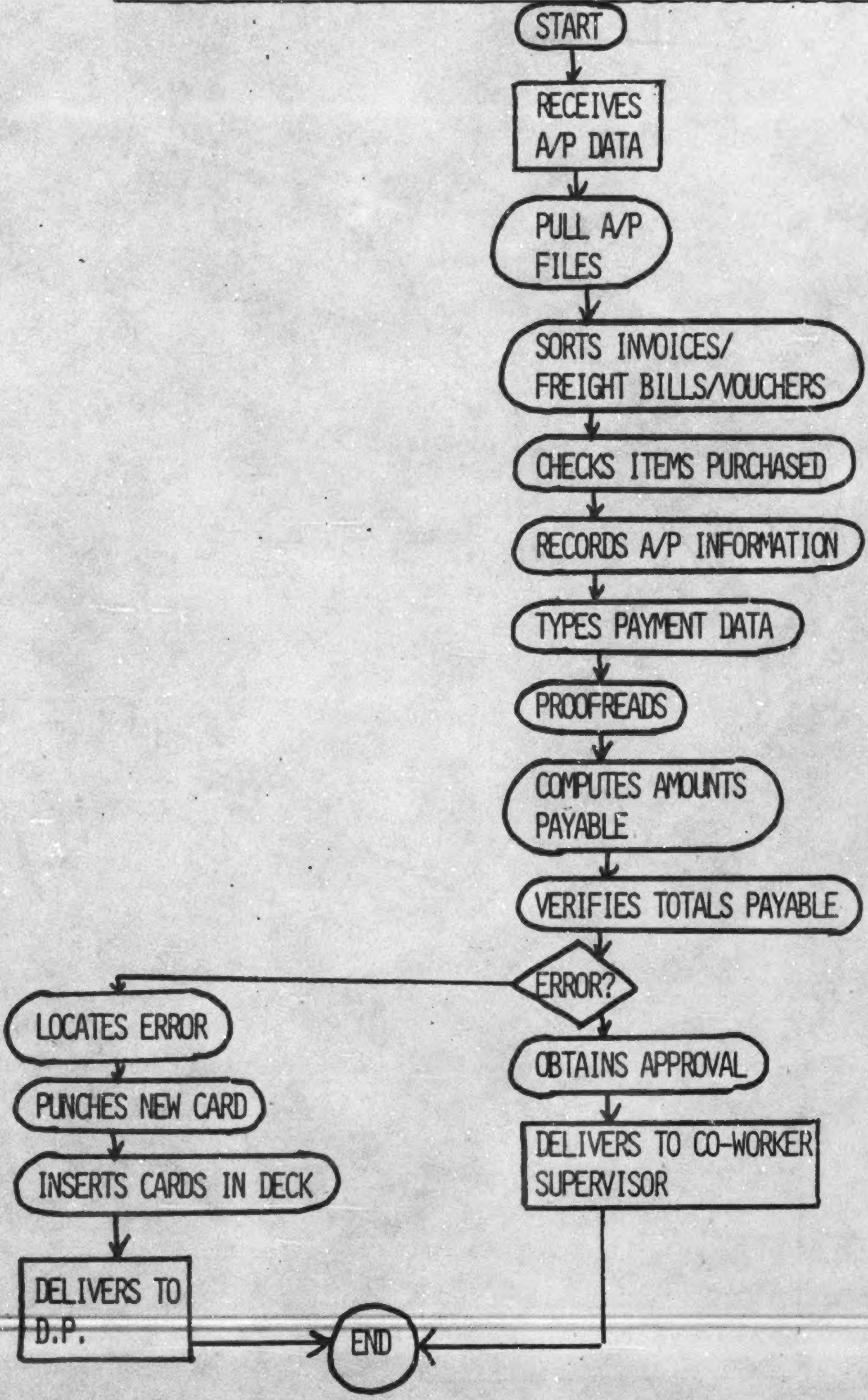
MARCH 19, 1979

Studying in the Combat Zone

Symbols

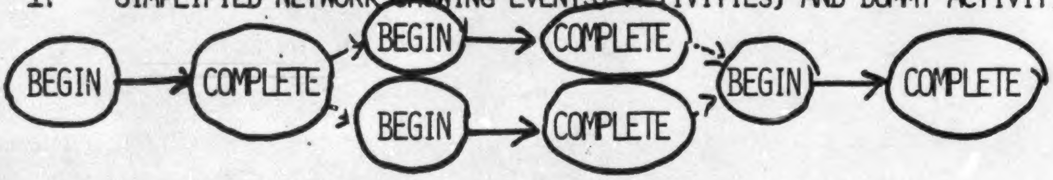

ALWAYS A PROCESS
OCCASIONALLY START
STOP
START
?
DECISION POINT
DISPOSITION
ACQUISITION

SAMPLE FLOWCHART FOR ONE OF THE PERFORMANCE TASKS: From Text

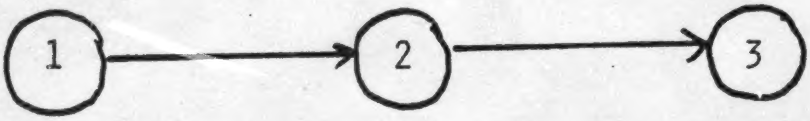

START
RECEIVES A/P DATA
PULL A/P FILES
SORTS INVOICES/ FREIGHT BILLS/VOUCHERS
CHECKS ITEMS PURCHASED
RECORDS A/P INFORMATION
TYPES PAYMENT DATA
PROOFREADS
COMPUTES AMOUNTS PAYABLE
VERIFIES TOTALS PAYABLE
ERROR?
LOCATES ERROR
PUNCHES NEW CARD
INSERTS CARDS IN DECK
DELIVERS TO D.P.
OBTAINS APPROVAL
DELIVERS TO CO-WORKER SUPERVISOR
END

SOURCE: US OFFICE OF EDUCATION --P.E.R.T.

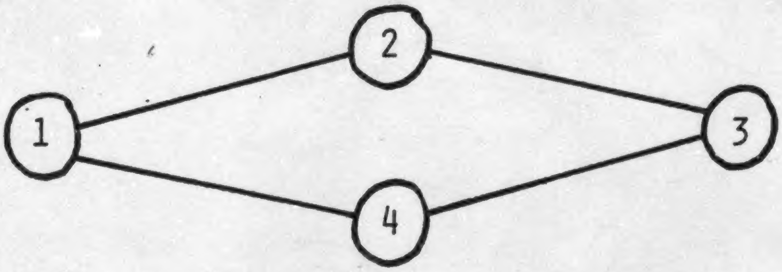
1. Simplified Network Showing Events, Activities, and Dummy Activities


BEGIN
COMPLETE
BEGIN
COMPLETE
BEGIN
COMPLETE
BEGIN
COMPLETE

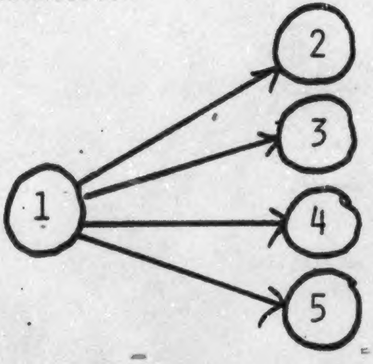
2. Series Construction



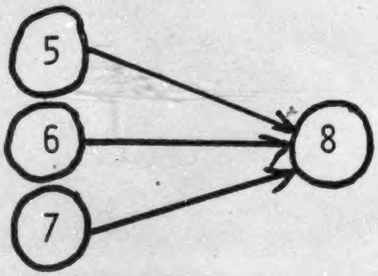
3. Parallel Construction



4. Burst Construction

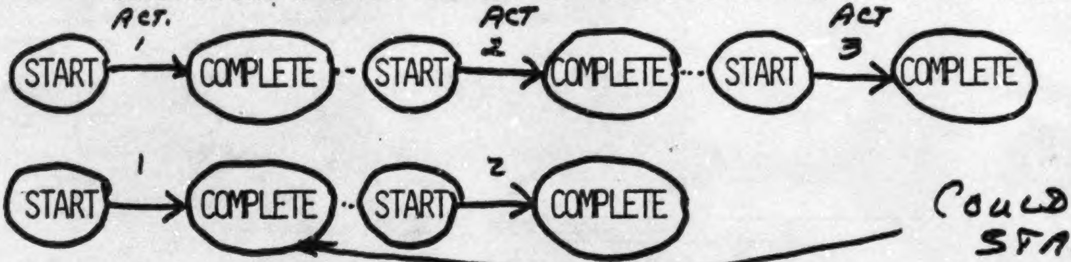


5. Merge Construction



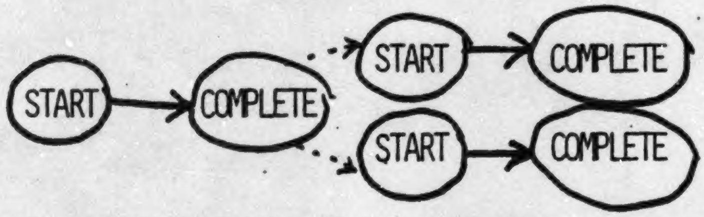
PERT CONSTRUCTIONS CONTINUED:

6. DESIGNATION OF START AND COMPLETION OF ACTIVITIES FOR NETWORK CLARITY

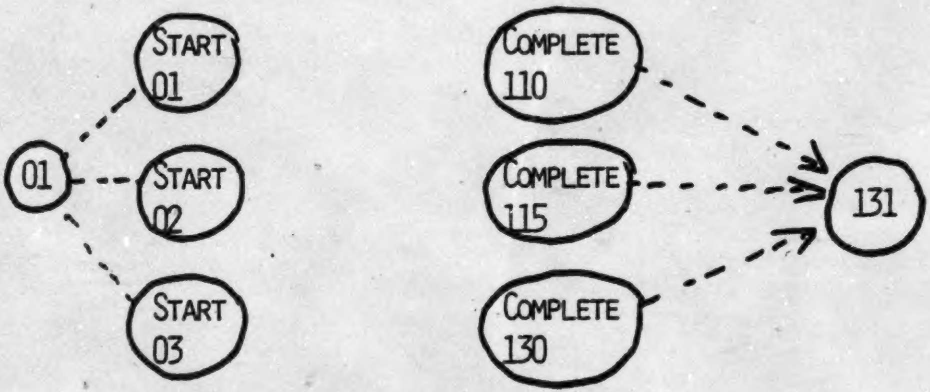

ACT. 1
ACT 2
ACT 3
START
COMPLETE
START
COMPLETE
START
COMPLETE
1
2
START
COMPLETE
START
COMPLETE

COULD BE A START ∴ 1-2-.

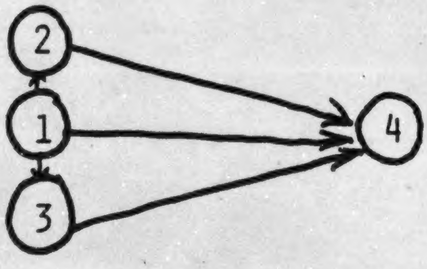
7. REQUIRED COMPLETION OF PRELIMINARY ACTIVITIES BEFORE STARTING SUBS. ACT.


START
COMPLETE
START
COMPLETE
START
COMPLETE

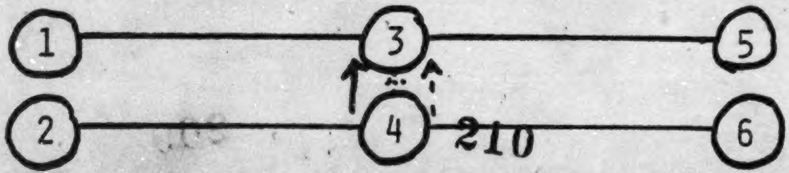
8. DUMMY STARTS AND FINAL EVENT


START 01
01
START 02
START 03
COMPLETE 110
COMPLETE 115
COMPLETE 130
131

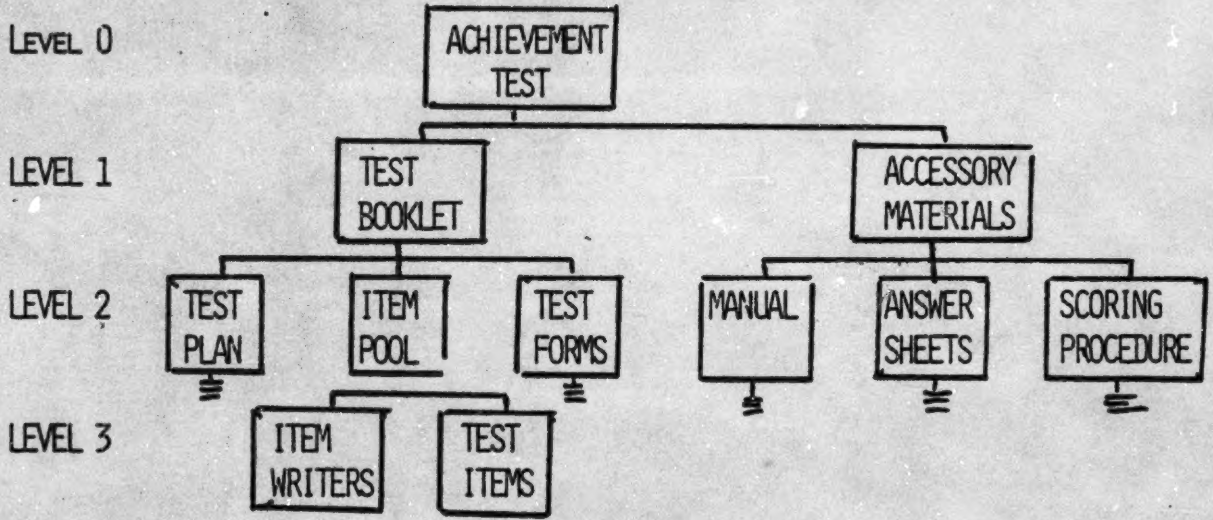
9. CONCURRENT ACTIVITY CONSTRUCTION



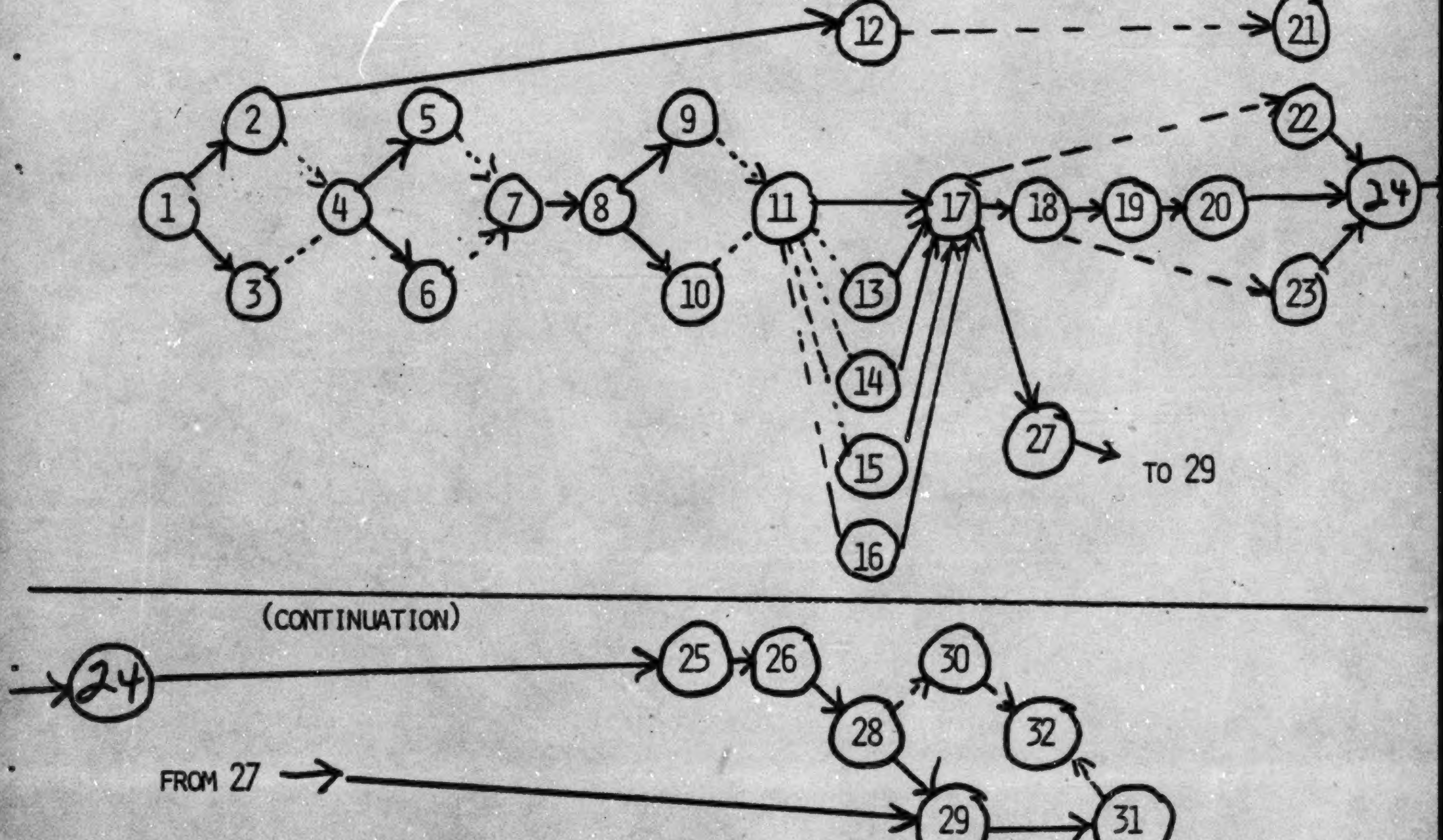
10. CONCURRENT ACTIVITIES WITH DIFFERENT DEPENDENCIES



PICTORIAL WORK BREAKDOWN STRUCTURE FOR ACHIEVEMENT TEST DEVELOPMENT PROJECT

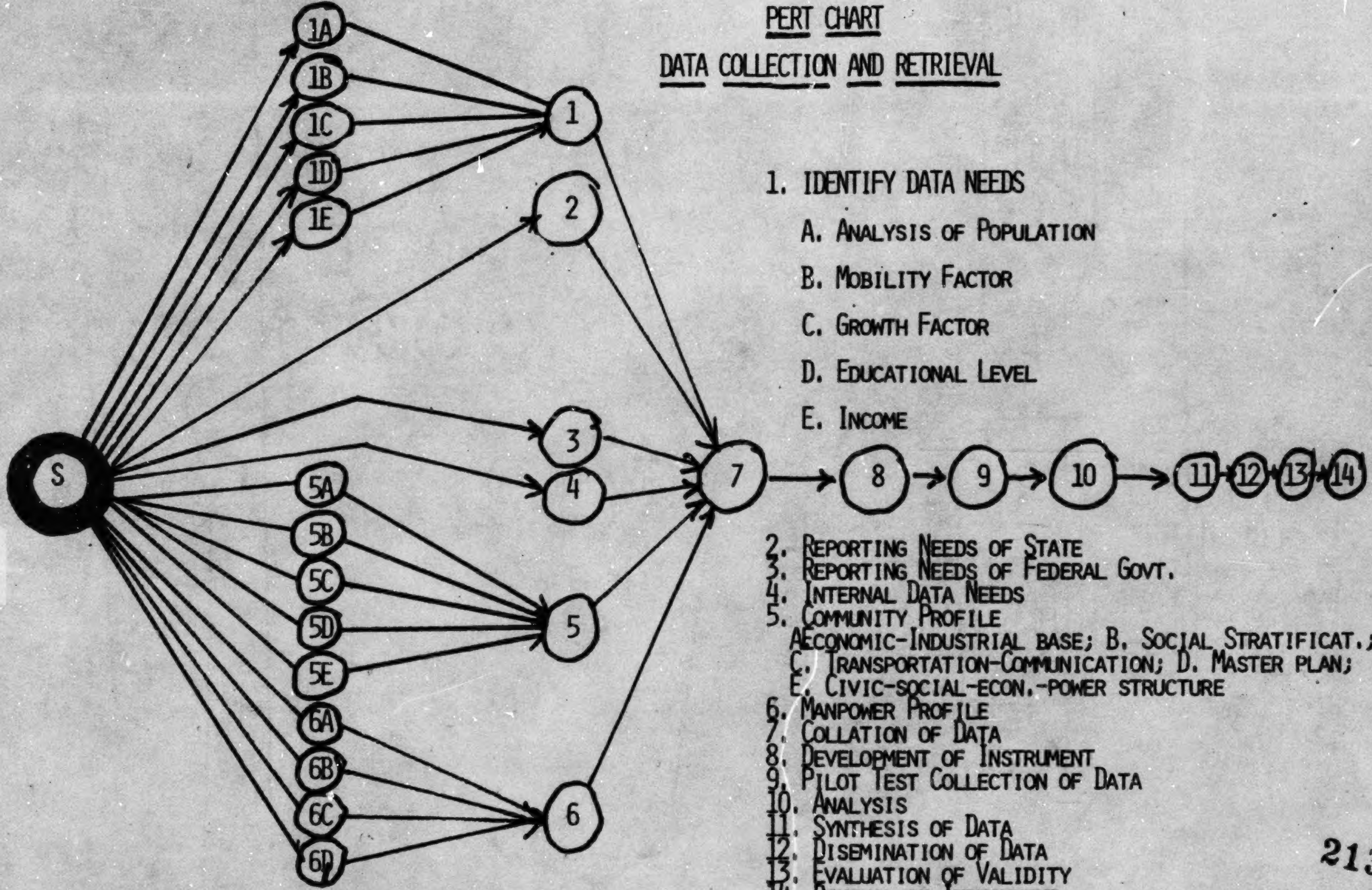

LEVEL 0
ACHIEVEMENT TEST
LEVEL 1
TEST BOOKLET
ACCESSORY MATERIALS
LEVEL 2
TEST PLAN
ITEM POOL
TEST FORMS
MANUAL
ANSWER SHEETS
SCORING PROCEDURE
LEVEL 3
ITEM WRITERS
TEST ITEMS

SUMMARY NETWORK FOR ACHIEVEMENT TEST DEVELOPMENT PROJECT


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
27
TO 29
(CONTINUATION)
24
25
26
28
30
32
FROM 27
29
31

SOURCE: NAITTE JOURNAL
FALL, 1974.

PERT CHART
DATA COLLECTION AND RETRIEVAL



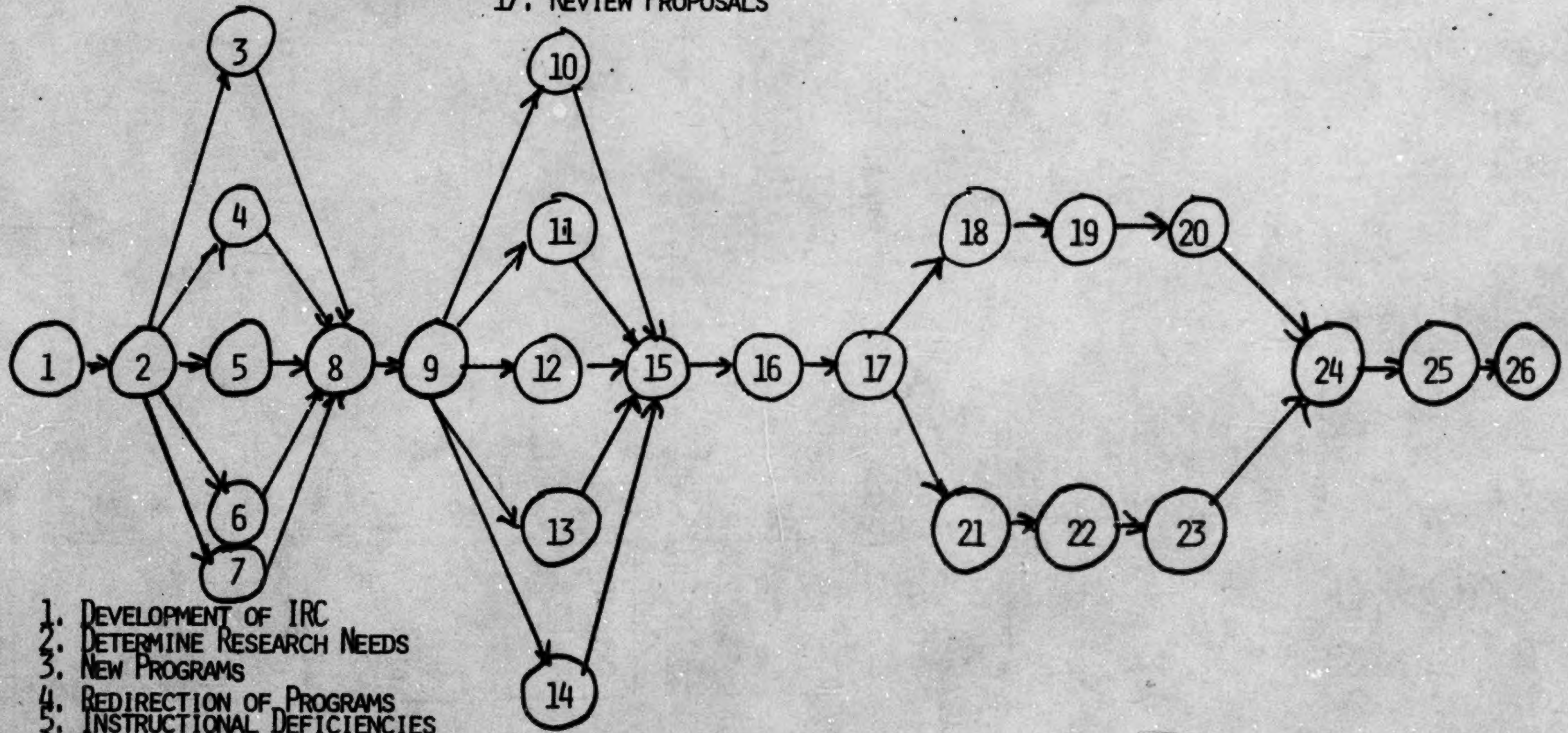
1. IDENTIFY DATA NEEDS
   A. ANALYSIS OF POPULATION
   B. MOBILITY FACTOR
   C. GROWTH FACTOR
   D. EDUCATIONAL LEVEL
   E. INCOME
2. REPORTING NEEDS OF STATE
3. REPORTING NEEDS OF FEDERAL GOVT.
4. INTERNAL DATA NEEDS
5. COMMUNITY PROFILE
   A. ECONOMIC-INDUSTRIAL BASE; B. SOCIAL STRATIFICAT.;
   C. TRANSPORTATION-COMMUNICATION; D. MASTER PLAN;
   E. CIVIC-SOCIAL-ECON.-POWER STRUCTURE
6. MANPOWER PROFILE
7. COLLATION OF DATA
8. DEVELOPMENT OF INSTRUMENT
9. PILOT TEST COLLECTION OF DATA
10. ANALYSIS
11. SYNTHESIS OF DATA
12. DISEMINATION OF DATA
13. EVALUATION OF VALIDITY
14. RENEWAL OF INSTRUMENT

Source: Valentine & Larson,
A Systems Approach For
Implementing An Instu.
Research Program.
NAITTE Journal, Fall, 1974

PERT FOR INSTITUTIONAL RESEARCH

12. Finances
13. Community Needs
14. Student Needs and Interests
15. Priorities
16. Print and Disseminate
17. Review Proposals

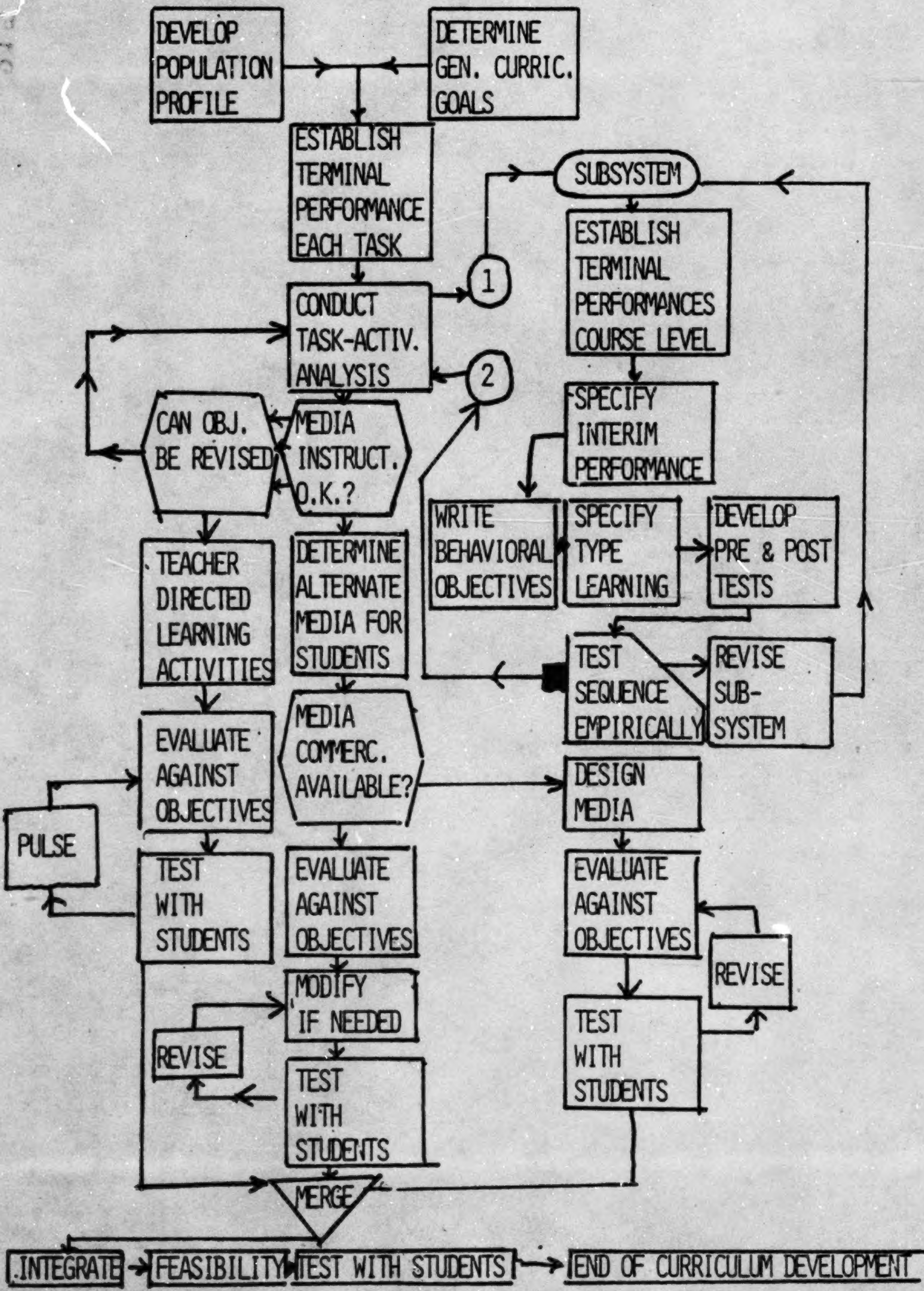
23. PERT of Research
24. Evaluation
25. Implementation or Adaption
26. Disemination of Research



1. Development of IRC
2. Determine Research Needs
3. New Programs
4. Redirection of Programs
5. Instructional Deficiencies
6. Emerging Programs
7. New Instructional Dimensions
8. Develop Objectives
9. Determine Resource Limits
10. Space
11. Faculty

18. Determine Internal Research
19. Allocation of Resources
20. PERTing Research Project
21. External Research
22. Location of Fun Sources

THE RESNICK MODEL FOR A SYSTEMS APPROACH FOR CURRICULUM DEVELOPMENT (TEXT)


DEVELOP POPULATION PROFILE
DETERMINE GEN. CURRIC. GOALS
ESTABLISH TERMINAL PERFORMANCE EACH TASK
SUBSYSTEM
ESTABLISH TERMINAL PERFORMANCES COURSE LEVEL
CONDUCT TASK-ACTIV. ANALYSIS
1
2
SPECIFY INTERIM PERFORMANCE
CAN OBJ. BE REVISED
MEDIA INSTRUCT. O.K.?
WRITE BEHAVIORAL OBJECTIVES
SPECIFY TYPE LEARNING
DEVELOP PRE & POST TESTS
TEACHER DIRECTED LEARNING ACTIVITIES
DETERMINE ALTERNATE MEDIA FOR STUDENTS
TEST SEQUENCE EMPIRICALLY
REVISE SUB-SYSTEM
EVALUATE AGAINST OBJECTIVES
MEDIA COMMERC. AVAILABLE?
DESIGN MEDIA
PULSE
TEST WITH STUDENTS
EVALUATE AGAINST OBJECTIVES
EVALUATE AGAINST OBJECTIVES
REVISE
MODIFY IF NEEDED
TEST WITH STUDENTS
REVISE
TEST WITH STUDENTS
MERGE
INTEGRATE
FEASIBILITY
TEST WITH STUDENTS
END OF CURRICULUM DEVELOPMENT

APPENDIX Q

SAMPLE CLOZE PROCEDURE

PREPARED FOR LANCASTER AVTS TEACHERS

BY

L. JAY THORNTON, SPECIAL NEEDS PROJECT DIRECTOR

THE PENNSYLVANIA STATE UNIVERSITY

INSTRUCTIONS

CONSTRUCTION:

1. SELECT A REPRESENTATIVE PASSAGE FROM YOUR CLASS TEXT OF APPROXIMATELY 150 WORDS. (THE AMOUNT WILL VARY ACCORDING TO THE NUMBER OF DELETIONS IN THE TEXT. ALWAYS PROVIDE FOR A COMPLETE BEGINNING AND ENDING SENTENCE.)
2. TYPE THE FIRST SENTENCE INTACT.
3. BEGINNING WITH THE SECOND SENTENCE, DELETE EVERY TENTH WORD.

   USE A TEN SPACE LINE IN PLACE OF THE DELETED WORD.

   NUMBER EACH DELETION IN THE CENTER OF THE TEN SPACE LINE.
4. FOR EASE OF SCORING MAKE DELETIONS IN MULTIPLES OF 10, E.G., 10, 20, 30, 40, ETC.
5. LEAVE THE LAST SENTENCE INTACT.

ADMINISTRATION:

1. PRIOR TO GIVING THE TEST, DEMONSTRATE HOW TO TAKE THE TEST.
2. USING AN OVERHEAD PROJECTOR, PRESENT A SHORT PASSAGE OF THREE OR FOUR SENTENCES WITH EVERY TENTH WORD DELETED.
3. HAVE THE CLASS FILL IN THE DELETIONS ORALLY. EXPLAIN THAT WHILE MORE THAN ONE WORD COULD BE USED, ONLY THE EXACT REPLACEMENTS WILL BE ACCEPTED ON THIS TEST.
4. ANSWER ANY QUESTIONS.

SCORING:

60% AND HIGHER - INDEPENDENT LEVEL, 40% - 60% - INSTRUCTIONAL LEVEL, BELOW 40% - FRUSTRATIONAL LEVEL.

MACHINE SHOP OPERATIONS AND SETUPS - MILLING OPERATIONS

COMPENSATION FOR BACKLASH. THE OPERATOR OF THE MACHINE MUST REMEMBER THAT BACKLASH ENTERS INTO THE ADJUSTMENT OF THE CONTROLS FOR THE TABLE. BACKLASH IS THE LACK OF MOTION OR LOST MOTION ____1____ THE ROTATING OF A SCREW IN A NUT IS ____2____ FROM CLOCKWISE TO COUNTER-CLOCKWISE. IN ADJUSTING THE POSITION OF ____3____ TABLE, FOR EXAMPLE, THE SCREW MAKES A PARTIAL TURN (____4____ BACKLASH), DURING WHICH THE SADDLE DOES NOT MOVE. TO ____5____ FOR THIS LOSS OF MOVEMENT, EASILY MEASURED ON THE ____6____ DIALS IN THOUSANDTHS, TURN THE HANDLE ABOUT ONE-HALF TURN ____7____ THE DIRECTION OPPOSITE THE PROPOSED ADJUSTMENT. THEN TURN THE ____8____ TO BRING THE WORK TO THE POINT FROM WHICH ____9____ SETTINGS IN THE SAME DIRECTION ARE TO BE MADE.

____10____ STOPS. ADJUSTABLE STOPS ALONG THE LENGTH OF THE TABLE SERVE AS AUTOMATIC TRIPS.

(FROM THE TEXT: MACHINE SHOP OPERATIONS AND SETUPS, 4TH EDITION, BY ORVILLE D. LASCOE, CLYDE A. NELSON, AND HAROLD W. PORTER, AMERICAN TECHNICAL SOCIETY, CHICAGO, IL, 1977.)

TO THE TEACHER

NOTE: THE ABOVE SAMPLE CLOZE TEST UTILIZES TEN RESPONSES FOR EASE OF SCORING. THIS IS THE MINIMUM NUMBER OF RESPONSES THAT SHOULD BE USED IN THIS TYPE TEST. THE VALIDITY OF THE RESULTS IS GREATER IF A LARGER NUMBER OF RESPONSES IS POSSIBLE. THUS, IT IS RECOMMENDED THAT THE TEN RESPONSE TEST BE USED ONLY FOR AN INDICATOR IN THE PRE-TEST SITUATION. IF THE CLOZE TEST IS TO BE USED FOR OTHER PURPOSES, SUCH AS A POST-TEST EVALUATION OF COMPETENCY IN READING OCCUPATIONAL LITERATURE, A 50 RESPONSE TEST SHOULD BE EMPLOYED.

ANSWER SHEET

Machine Shop Operations and Setups - Milling Operations, Cloze Test

1. WHEN
2. CHANGED
3. THE
4. THE
5. COMPENSATE
6. GRADUATED
7. IN
8. HANDLE
9. SUBSEQUENT
10. ADJUSTING

OVERCOMING DISADVANTAGE BY READING DEFICIENCY: THE CLOZE TEACHING TECHNIQUE

by

L. Jay Thornton

The cloze procedure (Taylor, 1952) is primarily regarded as an assessment or measurement device concerning the readability or comprehension of a piece of literature. It is a method whereby the deletion of a series of words causes a disruption of language pattern. Readers of "clozed" literature are responsible for determining the words which have been deleted and restoring the language pattern. This is accomplished by means of contextual and experiential clues.

"Clozing" a given piece of literature involves deleting a series of words according to a predetermined schedule (i.e., every 5th word, 7th word, Nth word). Where the words have been deleted underlines of uniform length are struck. The uniformity of underlining nullifies word clue by length of underlining. In addition to scheduled deletion, "clozing" requires leaving the first and last sentence of the passage intact.

Literature thus prepared is ready for use as a cloze device. At this point it would be required that the teacher issue a set of specific directions to the student. These directions can influence the validity of the cloze test, for, although the passage is appropriately treated as described above, and ready for use, if the directions are not explicit, the procedure is no more valid for evaluation than any fill-in exercise.

For contextual clues to be operative, it is necessary that the student be instructed to read the entire passage first. It could be helpful to read it through a second time to derive additional benefit of context and develop an awareness of the intent of the writer. Subsequently, the student is instructed to read the passage again, this time writing in the words which have been deleted.

Critical to the process is instruction to the student to be aware of when outright guessing is the rationale for word selection and when there is good reason for choosing a particular word. Using cloze as a teaching technique, Bortnick and Lopardo (1974, p. 6) recommended that the student "try to offer reasons" for the choices made and "be prepared to discuss both passages" (the original and the clozed passage). The threat inherent in the directive "be prepared to discuss" may interfere with the test, but some plan for reducing consistent guessing is needed. For those blanks the student cannot solve, guessing is, however, appropriate.

TEACHING TECHNIQUES

There exists a variety of cloze modifications which are useful to the vocational teacher. The changes in the procedure reflect the purpose of the exercise. If, for example, an occupational instructor wishes to highlight safe practices in a shop and be certain that the student reading safety literature understands what is being read, the passage can be "clozed", deleting those words which are critical to the safe practices comprehension. The following painting passage with "instructional modification" words (to be deleted) underlined illustrates the technique:

SAMPLE: INSTRUCTIONAL MODIFICATION CLOZE

> Electrostatic spraying with a hand-held gun requires extra care. The gun, the piece to be sprayed, and all conductive equipment must be grounded to prevent sparking. While you are spraying, the gun must be held twice the sparking distance or at least 12 inches from the work and other conductive surfaces.
>
> All electrical equipment must be in another room or well away from the spraying area (at least 20 feet), or it must be of the type approved for hazardous locations and explosive areas. (HEW Publication, NIOSH 76-178, p. 8).

Another modified cloze teaching technique is the "lexical cloze." Lexical is defined as relating to words of a language. The lexical cloze involves deletion of words according to the kinds of words they are, such as nouns, verbs, adjectives, etc. A later segment of this article develops grammar modifications utilizing the lexical cloze, establishing the applicability for occupational education reading intervention. The example which follows illustrates use of verb deletions in a cosmetology application. The words to be deleted have been underlined:

> After hair has been lightened evenly and sufficiently with Wellite Cream Bleach, shampoo lightly and towel-dry thoroughly - or dry under a cool dryer if an excessive amount of yellow or gold has to be overtoned.
>
> 1. Part the hair into four sections from forehead to neck and from ear to ear. Outline each section with Color Charm Toner mixture as you start applying to that section.
> 2. Starting at the crown with one of the back sections, apply Color Charm Toner mixture to root area first. Make 1/4 or 1/2 inch partings. Proceed to root area of other back section and then root areas in front.
> 3. Immediately after the root areas are completed, apply Color Charm Toner mixture to the entire length of hair, combing through for even distribution. Leave hair loose--do not pack down.

If the ends are overporous or badly damaged, comb through to ends only during the last 5 to 10 minutes of developing time.

4. Total developing time is usually 20 to 25 minutes. Use strand test to check color development.

5. When desired color has been reached, rinse thoroughly and give a light shampoo, using a non-stripping shampoo, such as Wella Color Care Shampoo. (Product Information Insert, Wella Corp., 1975).

Note that only the verbs involving an action on the part of the student have been marked for deletion. It is the activity that is emphasized in this reading intervention exercise.

When used as a teaching technique, the cloze procedure is easily adapted to provide for increasing degree of difficulty. Often vocational students have experienced a history of failures in reading. The pattern is conducive to diminish motivation in an attempt to read. In order to break the pattern and increase the likelihood of a motivated reader, a pattern of reading successes is useful. Literature of any level of readability can be clozed. Thus, vocational literature at a low readability level can be used for those students who need a success stimulus. In addition, for teaching purposes, synonyms or words close to the correct word can be accepted. The number of clozed words can be decreased, instead of following a schedule. The next example illustrates this point.

MINIMUM STANDARDS: MULTI-USE UTENSILS

All multi-use eating and drinking utensils shall be subjected to one of the following approved processes after each usage:

Manual Washing, with Hot Water Sanitizing.

A three-compartment sink, equipped with a heating device which will maintain the temperatures specified below, is required for this method:

Step 1. Scrape and rinse soiled dishes, glassware, or utensils.

Step 2. Wash in hot water with an effective detergent in the first compartment of the sink.

Step 3. Rinse in clean hot water in the second compartment.

Step 4. Immerse in clean hot water at 170° F. for 1/2 minute or more in the third compartment.

(Pennsylvania Department of Health, 1975).

For the word "soiled", the student would be correct inserting "dirty", for example. Note that only three deletions have been made and all are heavily clued.

CASE GRAMMAR AND THE CLOZE PROCEDURE

Gibson and Levin (1979, p. 102) describe Fillmore's theory of case grammar, ". . .which imaginatively combines syntactic and semantic features." The study of meanings (semantics) and the orderly system of words (syntax) combine in Fillmore's Case Concepts (Brown, 1973) to enable the teacher to identify words in a sentence which result in judgments by the reader. From the Brown adaptation the following illustrations were developed:

Agentive (A) - "The typically animate, perceived instigator of action."

The electrician runs the wiring before the drywall is hung.

After tacking metal strips together, the operator lays vertical welds.

Instrumental (I) - "The inanimate force or object casually involved in the state or action named by the verb."

The thickness of a saw blade determines the width of a kerf.

New windows are no longer held in place by dash cords and weights.

Dative (D) - "The animate being affected by the state or action named by the verb."

The patient's right to privacy should be respected.

The mason was injured when the scaffolding on which he was working collapsed.

Factive (F) - "The object or being resulting from the state or action named by the verb."

The house was built by a carpenter, but was roofed by another trade specialist.

Fiberglass is a health hazard when in the form of airborne particles.

Locative (L) - "The location or spatial orientation of the state or action named by the verb."

The chairside dental assistant is seated on a stool positioned approximately four inches above the operating area.

Place the bare end of the electrode in the holder as shown in Figure 7-1.

Objective (O) - "The semantically most neutral case: anything representable by a noun whose role in the state or action named by the verb depends on the meaning of the verb itself."

Take or send the vomitus specimen to the laboratory.

The rip fence on a bench saw is removable for times when a larger surface is required.

Benefactive (B) - "A noun deriving benefit of the action of the verb."

Occasionally roofers will complete some of the carpenter's trim requirements.

The assistant may accompany the discharged patient to the hospital exit.

Comitative (C) - "In accompaniment"

> If a patient wishes to leave the hospital without the doctor's order and against his advice, notify the supervising nurse.immediately.

> This product contains ingredients which may cause skin irritation on certain individuals and a preliminary test according to enclosed directions should first be made.

Temporal(T) - "When the verb is accomplished or occurs."

> Caution: Be sure the safety chain retaining chain is clear before raising the jack.

> Insert the three jumper wires by first cutting to size and then stripping the ends of the hookup wire.

The sample sentences used previously were adapted from literature pertaining to cosmetology, health assistance, dental assistance, auto technology, electronics, carpentry, plumbing, masonry, welding, painting, and glass technology occupations. The simplicity of the examples should not be misconstrued as a limitation on the usefulness of the technique. The nine case grammar concepts occur individually and collectively in virtually every piece of literature. The fact that the literature of concern to vocational teachers is technical or occupationally oriented does not diminish the universality of application of case grammar in a modified teaching technique.

A variety of uses exist for the modified cloze teaching techniques. They adapt well for inclusion in self-instructional packets. They can be used for concept or unit of study introduction. Individual and team games are easily structured from clozed literature. Product and materials instruction can be clozed and used in tandem with simulated curricular literature. Math reading problems, structural specifications, safety warnings, medical contraindications, anything written to be read can be clozed and presented in a manner limited only by the imagination of the teacher.

While it is true that the cloze procedure is not a panacea for reading deficiencies of vocational students, the modified teaching techniques offer methods of intervention that are immediately useful in occupational and vocational studies. They do not require reading specialization by the person preparing, adapting, or using them. They contain enough puzzle mystique to make them enjoyable for the students. And their planning, preparation, implementation consumes very little time.

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Minimum Acceptable Standards For Washing and Sanitizing Multi-Use Utensils. Pennsylvania Department of Health, 1975.

Product Information Insert, Wella Corporation, Englewood, New Jersey, 1975.

Spray Painting: Good Practices For Employees. U. S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health, Division of Technical Services. Cincinnatti, Ohio, April, 1976.

Taylor, W. L. Cloze Procedure: A New Tool for Measuring Readability. Journalism Quarterly, 30, Fall, 1953.

APPENDIX R

Review and Discussion Guide

Jobs for the Hard-to-Employ:

New Directions for a Public-Private Partnership

CED

Based on a statement by
the Research and Policy Committee
of the Committee for Economic Development

THIS REVIEW AND DISCUSSION GUIDE is designed to stimulate discussion and focus the attention of informed citizens, educators, students, business executives, and others on a specific topic of national interest. It is published by the Committee for Economic Development, an independent research and educational organization of two hundred business executives and educators. CED is nonprofit, nonpartisan, and nonpolitical. Its purpose is to propose policies that will help bring about steady economic growth at high employment and reasonably stable prices, increase productivity and living standards, provide greater and more equal opportunity for every citizen, and improve the quality of life for all.

The Review and Discussion Guide is part of CED's effort to bring about increasing understanding of these objectives and how they can be achieved. Designed for use in seminars, workshops, management training courses, and classrooms, this guide is based on *Jobs for the Hard-to-Employ: New Directions for a Public-Private Partnership*, a statement by CED's Research and Policy Committee.

The Review does not include memoranda of comment, reservation, or dissent from CED trustees who took part in the preparation of the policy statement. These memoranda are part of the full statement, which is available on request from CED.

COMMITTEE FOR ECONOMIC DEVELOPMENT
477 Madison Avenue, New York, N.Y. 10022

Jobs for the Hard-to-Employ:

New Directions for a Public-Private Partnership

A wide range of public and private sector actions are going to be needed to attack the problems of the hard-to-employ. The best actions will be those that improve the climate and incentives for making job-seekers more productive and jobs more attractive. The country will profit most when *a relatively high proportion* of its people can get and keep productive jobs *in the private sector*. What follows is a review of the problem and a discussion of policies and actions to help make it happen.

Who's Not Working and Why?

Work is critically important to most people. It's not only a way to provide food, shelter, and the other necessities of life. It's part of their identity — their sense of self, their feeling of belonging, who they are and what they are.

Yet even during a time of business expansion, when the number of available jobs is increasing rapidly, millions of people who could be — and should be — working are not.

Some people are poorly prepared for work. Some jobs are poorly designed and positioned. Bias, lack of direction, even location, all play a part.

> Machine operators long out of work in Massachusetts may be needed in North Carolina, but are they told? Do they want to move? Who pays? Is it worth the effort?
>
> Is it realistic to expect young ghetto residents in their 20's to be satisfied with temporary jobs like picking up refuse in city parks?
>
> How can plant managers be convinced to take on the training of people who have little experience punching a time clock and low regard for its importance?

Economists often talk about *two* kinds of unemployment:

Cyclical unemployment, caused by the ups and downs of business and the general economic situation

Structural unemployment, where job seekers' education, skills, or locations do not readily match available jobs or where they are handicapped by discrimination

In good times as well as bad, unemployment attacks some groups much more sharply than others. The current rate of unemployment for heads of households is well below the national average, running at about 4 percent.

For black single males, it's 25 percent. For black women 20 years and over, it's about 12 percent.

For black teen-agers it's about 40 percent.

Unemployment is especially rough on minorities, youth, and women; on the unskilled and on those who aren't familiar with the structure and social "discipline" of a work environment. The elderly too have a hard time. While their unemployment rate is close to the average, once out of a job they tend to stay unemployed longer or become so discouraged that they withdraw from the job market entirely. People *not looking* for work, old and young alike, are not even counted in the official unemployment statistics.

Can we ever have 100 percent employment? Is it "normal" to have some unemployment?

There is no such thing as 100 percent employment; some unemployment is natural. The unemployment rate doesn't show a standing army. The work force is always in flux. People change jobs, move, look for new challenges, quit for personal reasons. Students go back to school. Businesses expand and contract, start up or fail.

The unemployment rate reflects, to some extent, the mobility, dynamism, and open options of our society.

But how much is too much?

Some believe that the old standards which pegged high employment solely to a single national number, such as 3 percent or 4 percent unemployment, still have validity. Others believe that our judgment of what is acceptable should also be based on the change in the total number of persons employed and the rate of progress in reducing the unusually high unemployment rates for disadvantaged groups.

What are the penalties of unnecessary unemployment to individuals and to the nation as a whole?

The damages to attitude, body, family, and neighborhood are obvious.

Studies show a high correlation between unemployment and mental disorder, alcoholism, heart attack, crime, and other problems. These are costly to society as a whole. School drop-out rates go up with unemployment, compounding the situation.

From an economic standpoint, our society suffers a large loss of goods and services that might have been produced if these people were working. And the state loses both taxes and income from diminished output.

During the 1975 recession year, the loss of goods and services caused by unemployment over 5 percent amounted to $120 billion in 1972 dollars. Taxes lost: $12 billion. Added expenditures for unemployment insurance, medicaid, welfare, etc.: $5 billion. Each percentage point rise in unemployment also added $6-$7 billion in state and local costs.

Most people find persistent excessive unemployment unacceptable — an intolerable waste of resources.

As CED sees it, a responsible, democratic society has an obligation to provide decent job opportunities for all who want to work: young and old, those who can profitably work part-time, the unskilled as well as the skilled.

High employment is not a pious wish. It is a goal of national policy. The pressing question is how to accomplish it and how it can be done in ways consistent with the nation's other important goals?

Stimulate?

One answer is to use the government's taxing and spending power to stimulate demand, to heat up the economy and keep it running at an even temperature.

Sustained high demand would virtually eliminate cyclical unemployment of any serious degree. It can have an effect on structural unemployment, too.

Can you see how high demand might benefit even disadvantaged or other hard-to-employ people?

Confidence in the economy fosters long-term investment, not only in capital equipment, but in human resources.

Employers, strapped for help, are much more willing to recruit, train, and retain workers.

People are able to spend more on everything from TV sets to haircuts. Governments are willing to supply cleaner streets, better education, and a host of other services.

Growth and upward movement create many openings for work at the entry level.

What are the dangers if total demand expands too much or too fast?

Inflation

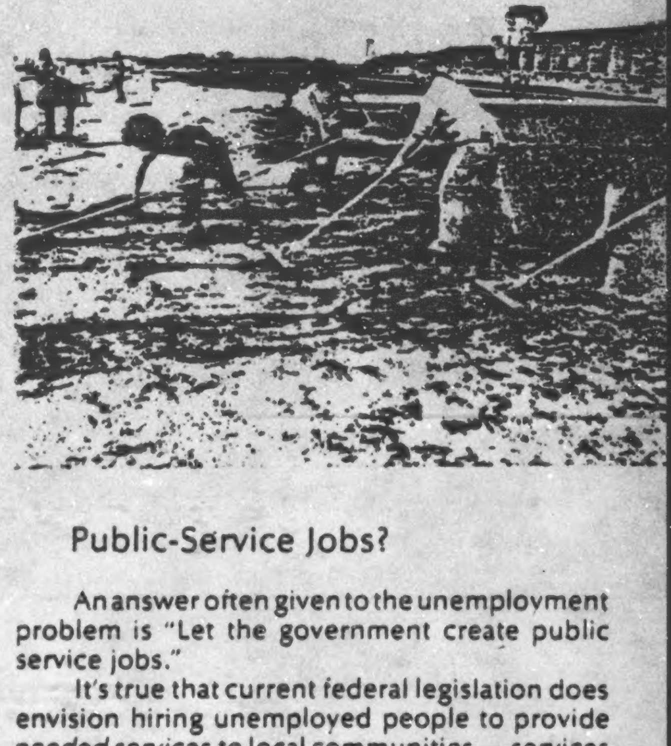
. . . as the "production machine" approaches capacity there will be material and labor bottlenecks. Costs increase, efficiency goes down (machines and people are being driven to their limit). The pull on prices and wages can become irresistible. And expected inflation can become a self-fulfilling prophecy.

The inflationary risks of demand stimulation might be cushioned by increasing and assuring competition, stimulating and encouraging capital investment, and working to prevent bottlenecks. But even so, the core problem — chronic unemployment of certain groups — would not be fully solved.

For the past two decades there has been a wide unemployment gap between blacks and whites. The unemployment rate for non-whites in 1977 (13.1 percent) was about twice as high as that for whites (6.2 percent). Among teen-agers, the gap was even wider: the 1977 unemployment rate for black teen-agers (38.3 percent) was more than double the unemployment rate for white teen-agers (15.4 percent).

The benefits of an expanding economy may be many, including higher employment, but that doesn't adequately solve the job problems of the young, the old, the unskilled, and the disadvantaged.

In this situation, is some additional *direct* action urgently needed? The answer is an urgent "yes" in CED's view.

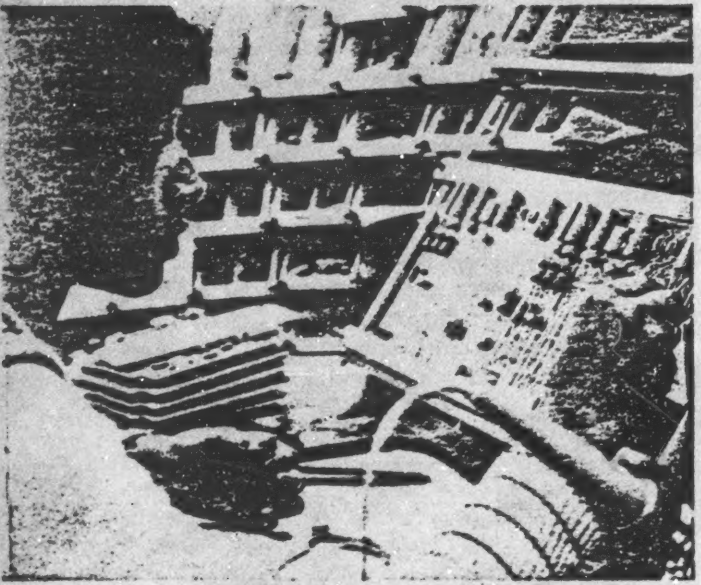


Public-Service Jobs?

An answer often given to the unemployment problem is "Let the government create public service jobs."

It's true that current federal legislation does envision hiring unemployed people to provide *needed services* to local communities — services such as street patrols and escorts through dangerous urban areas, service to the sick and elderly, building and repair of recreational facilities, child care, weatherization and environmental monitoring.

Critics of public-service jobs for the unemployed aim their attack on possible "make-work" aspects. "If the job is not necessary, if it doesn't add to society's wealth and well-being," some say, "it's just welfare by another name." Is this fair?



Can subsidized public-service jobs be valuable to both workers and society?

If those recreational jobs were training for careers in Park Service or private grounds maintenance, they certainly could be valuable.

Child care can allow others to work productively or pursue valuable education.

To elderly persons, employing someone to give them a safe trip home has very real value.

Other possibilities may come to mind.

Many objections to such programs stem from the image of poorly supervised teen-agers sweeping a dilapidated street one time during a long hot summer. Such jobs may keep young people busy for a short while, but they are dead-end and contribute little to the futures of young people and society.

Other critics speak more generally of subsidized public service jobs worsening the efficiency of public service and reducing the discipline on the use of the taxpayer's money.

Can government "hires" ever become inflationary? How?

A Direct Attack on Structural Unemployment

CED has set an agenda for a multi-pronged attack on structural unemployment using *private, as well as public, resources:*

- Involve the *private sector* much more than it has been.
- Find private-sector job and training programs that are already working and *spread the word.*
- Use *tax breaks* and other dollar *incentives* to private employment of hard-to-employ groups including tax credits for hiring certain categories of people, stipends for trainees and apprentices, selective exemptions from minimum wage and increased social security earnings ceilings.
- Stress *jobs and training* rather than pay for not working by
  - — improving the transition from education to work
  - — involving business (especially small business)
  - — more and better apprentice and on-the-job programs
  - — more productive use of older workers
  - — wider use of part-time and other flexible work arrangements
- Use alternatives to outright layoffs in recessions, including skill upgrading and work sharing
- Improve the management and operations of the U.S. Employment Service and CETA (the Comprehensive Employment and Training Act).

The stress is on cooperation between the public and private sector.

ENLARGING THE ROLE OF THE PRIVATE SECTOR

Four out of five jobs in the U.S. are in the private sector. This is where most opportunities must be developed. Small business, too, has to be brought into the arena. Firms with 100 employees or less supply half the jobs and can be particularly helpful to the young, the old, and the disadvantaged.

A Jobs Program Information Bank

Total private-sector involvement in employment problem-solving has lagged in recent years, but there are many specific instances of effective training and job-creation programs conducted by private firms and nonprofit organizations. Some are mentioned in this review. *Ideas that work can be imitated or adapted by others* provided they know about those ideas and understand them. Would a *clearing house* of job-making "success story" information be a good idea? CED thinks so. The clearing house could be operated privately but should receive federal funding and support.

Mechanisms to Mobilize Private-Sector Involvement

Business leadership — both at the national and local level — can initiate effective public-private partnership to aid the hard-to-employ. Business leadership groups (like the National Alliance of Businessmen) could join with community organizations, labor unions, and others to form *private, nonprofit organizations* whose main function would be to *contract with government* for manpower programs under CETA and other programs.

Is such an arrangement practical? It certainly seems so to CED. Examples include:

The work of *Chicago United*, where 20 large business firms and 20 minority group firms and organizations joined together to form one contracting organization to handle *all* the on-the-job training programs in the Chicago area; the excellent *Training and Technology (TAT)* workshop run by Union Carbide and a consortium of colleges at Oak Ridge, Tennessee; the *school-to-work transition network* formed by major business firms in conjunction with the National Manpower Institute; the *Opportunities Industrialization Centers, Inc.* All of these are examples of different approaches and concepts with two common denominators: *direct involvement of private business and government funding.*

Is the involvement of private business important in on-the-job training and job-action organizations?

Are training subsidies for this purpose a better use of government money than giving it to schools, direct subsidy of the unemployed, or tax credits for new hires?

Are such programs mutually exclusive?

AN INTERMEDIARY

CHICAGO UNITED and CABMS

A Training Contractor

"We buy training, not a job, though the person has a job from the beginning and may keep it. We give a skill, then the person can compete on his own. We buy training from employers — who can train better than employers?"
— Executive Director
Chicago Alliance of Business Manpower Services

One of Chicago United's "intermediary" creations is CABMS (Chicago Alliance of Business Manpower Services). This private, business-sponsored, nonprofit organization receives CETA funds, and organizes, markets, and contracts for on-the-job training (OJT) with area employers. In 1977 CABMS provided about 3,000 OJT jobs with 500-plus employers — mostly smaller employers and minority businesses. Categories include professional/technical, clerical and sales, machine trades — mostly non-unionized, non-apprentice jobs. Cost: $2,600 per job. (Job Corps costs have been estimated to be $6,000—$9,000 per trainee per year). CABMS serves disadvantaged youth, aged 26 and under, and 80 percent of its clients are black or Hispanic. Making use of business expertise, CABMS has sharply reduced red tape. Contract approval time has been cut from months to *ten days*. In the last two years the number of on-the-job trainees and employers willing to take contracts has doubled. Per capita training costs have been reduced 15 percent.

A Bridge: The Intermediary Organization

Many business firms are reluctant to directly train and hire the disadvantaged, even under government-funded programs. Some firms resist involvement with bureaucracy, the red tape, the reports and reviews. Many are cautious about the people they would have to train and hire.

But experience shows that *many will do it* if there is an "in-between" organization to handle the paper work and furnish counseling, support, and placement help.

What other advantages are there to an intermediary organization?

They supply continuity even as employers, trainers, job emphases change.

They are accountable: new funding depends on results.

They can arrange for the best available private training facilities and technical advice, and change when necessary. They can "use" companies differently:

(Some companies are willing to contract for and perform an excellent training operation, but prefer not to guarantee placement. Others are willing to hire graduates of special skill programs, but prefer not to do the training themselves.)

Do these advantages outweigh any disadvantages that might apply to an intermediary organization?

Jobs Corporations for the Hard-to-Employ

The concept of a "jobs corporation" is simple enough: people who are particularly difficult to place become the "employees" of a special corporation, under its guidance and management, and then are contracted out for jobs. As they become more accustomed to work schedules, "regular" job situations, or acquire more confidence, know-how, and responsibility, they are eventually placed in new training or employment situations.

This is one way to bring in people who normally would have difficulty fitting into more conventional on-the-job training programs or even into entry level jobs where they would have to conform to schedules, assume responsibilities, and function in a hierarchy which they might not accept. They need time. They need experience. They need special attention.

The jobs corporation can focus on the individual's needs and problems. In shifting economic situations and changing work needs, alternative job opportunities can be sought out and developed.

Making a jobs corporation work has taken a lot of time, determination, and patience. The question for any interested organization is: Is it worth the effort?

Legal and Administrative Changes to give Incentives to the Private Sector

Some private sector programs are made possible by new federal legislation. In many cases funds for public-service jobs and youth

A JOBS CORPORATION

MDRC

Supported work for the hardest-to-employ

MDRC (Manpower Demonstration Research Corporation) oversees "supported work" programs in 13 project locations around the country, and employs about 1900 persons. Clients are some of the most severely disadvantaged: ex-addicts, ex-offenders, long-term welfare mothers, and youths from low-income families. They work under very careful supervision, usually in "teams" or "crews" and under conditions of "graduated stress" to the point where they can eventually gain and hold full-time unsubsidized employment. Funding is based on government training and demonstration grants and on a diversion into the wage pool of some of the welfare and transfer payments these people would otherwise receive if they were not working. After the first nine months of the program, participants worked more hours, earned more money, received fewer or smaller welfare payments than a control group. Average length of stay was seven months. Most workers perform maintenance functions in public buildings and housing projects, repair agency motor vehicles, provide security, and raze buildings.

programs can be channelled through private entities. CED believes that business *initiative* in these areas is badly needed, but the federal government can do much to make private-sector involvement more attractive and can use its funds to encourage it. Contract procedures in all government/private relations should be simplified and speeded up.

Tax Credits as an Incentive

Wage subsidies in the form of tax credits could be an incentive to train and hire the hard-to-employ. One such concept has been enacted by Congress: a tax benefit for firms which raise their employment 2 percent-plus over the prior year's level, with a $100,000 ceiling (of assistance, mostly, to smaller business).

Can you see why this may be unnecessarily expensive in an expanding economy?

One obvious situation: many firms will receive credit for *employees they would have hired in any case* with business expanding.

The idea of *categorical tax credits,* given only for hiring those who are not likely to be hired even with improving business conditions, was recommended by CED as a more specific attack on the particular problem.

Another possibility is to use a graduated wage subsidy, making it high during the critical first year of employment and decreasing it afterward.

Wage subsidies are controversial.

Some feel that subsidized "hires" will not really decrease unemployment. They argue that they will only *displace* others, since their wages represent a net reduction in cost to employers, resulting in more turnover, and possibly increased costs for unemployment compensation, etc.

However, such subsidies are successfully used in other countries and many feel they add to the productivity of the labor force.

Unions may object to programs which, in effect, lower wages paid by employers. However, if subsidies pay for extra training, unions may support their use.

Positive *incentives* are one thing, *reducing disincentives* to private-sector training and jobs for the hard-to-employ is another. Some people have argued for a lower minimum wage for teen-agers, arguing that this would encourage employers to hire younger, inexperienced workers. Another frequently mentioned disincentive is the social security payroll tax. *Earning restrictions* on social security and welfare recipients also keep them from working and discourage employers from hiring them.

Granting that a lowering of the minimum wage for certain selected groups, such as teen-agers, the aged and the disabled, would work to their employment advantage. . .

Why is there opposition?

Those opposed, particularly labor unions, assert that the "below scale" people would take jobs away from prime-age workers. In the next few years the main increase in new young job seekers will be in the 20-24, not in the 16-20, group. A lower minimum for teens might, indeed, take jobs from others just when they need them most.

Administrative exemptions from the minimum wage for some 155,000-plus full-time students who work part-time and for some others who are in special training programs already exist. It may be possible to expand this administrative procedure without tampering with the minimum wage law itself. Further experimentation with exemptions and stipends for hard-to-employ groups may be justified.

What other incentives are possible? What are the benefits? What are the disadvantages?

Consider:

- Lowering social security payroll deductions for such groups as the young

An incentive for both worker and employer, yes. But it could be detrimental to the Social Security System which is already in bad financial shape.

- Training stipends or vouchers

Might encourage employers to train many more, but . . .

Which people? Do we discriminate? Is it legal? Would employers accept the truly disadvantaged? Would it be worthwhile if thousands of middle-class youngsters presented training vouchers to employers?

What about "training" courses offered by institutions such as fast-food chains? Should these be subsidized?

- Raising Social Security earnings ceilings

Social Security is designed for people who are retired – not for people who work. Is it fair to tax younger people to pay benefits to working senior citizens?

Raising the earnings ceilings would help many older people, and provide a "skill cushion" for times of high demand (relieving bottlenecks), but the raised ceiling would force the payment of benefits to those now working and not receiving them, a costly procedure.

Perhaps the ceiling could be raised selectively, for those who work at jobs where certified labor shortages exist. It would be anti-inflationary in this event.

The negatives mentioned are not meant to end argument. The inequities may be worth the overall result. It's worthy of discussion.

PREPARATION, TRAINING, AND JOBS FOR THE HARD-TO-EMPLOY

Cracking the problem of the hard-to-employ means improving job information, guidance, education, mobility in the labor force, the work environment, and even work itself. It means lowering barriers and changing attitudes. Obviously not an easy task. Here are some of the key areas in which CED believes improvements can be made or action can be taken.

1. Easing the transition from education to work.

Moving from school to work can be frustrating. "To get a job, you have to have experience." and "You need experience to get a job." We must break this vicious cycle.

To improve education-for-work and the education/work relationship, consider what might be done in the following areas:

- basic education
- occupational information
- career counseling
- job placement assistance
- special counseling for the disadvantaged

In all these areas *active participation* by practical, experienced business and labor people — including retirees — can produce dramatic results. Who knows better about real jobs, tools, working places, trials, and rewards? Business and labor can provide facilities, tools, personnel, time, experience, and a refreshing splash of reality. Work and school can be brought closer together with co-op programs, classes at work places, part-time jobs, and work-study arrangements.

WORK AND STUDY

Business Involvement

Continental Illinois Bank (Chicago) in the last three years has employed about 500 youths, aged 16 to 21, in a half-time split between school and work. The bank says that it has been able to take a close look at these cooperative education employees before they were hired full-time upon graduation. On their part, the employees gained a much better knowledge of the company's methods and working environment, and a much clearer idea of job and career opportunities.

Northwestern Mutual Life Insurance (Minneapolis) and ***Ralston Purina*** (St. Louis) both have work-study projects involving 25 to 35 high school seniors, who work half in the company and half in school. At Ralston Purina, however, the schooling is on site, and is aimed at students who might have dropped out of school if not for the program.

2. A major increase in apprenticeship programs.

The need for skilled workers in auto repair, health care, energy-related technology and other service jobs will grow. Training stipends and other incentives might help to overcome employer and union reluctance to bring the hard-to-employ into these occupations.

3. Expansion of on-the-job training.

Business firms and minority enterprises under direct contract with CETA can step up this kind of activity.

4. Use of real or simulated work settings.

Well-equipped workshops that "feel" like the real world can acclimate trainees and ease transition. This is true of bank, office, and store environments as well as industrial plants.

5. Draw gifted minority people into professional fields.

There are opportunities in engineering, business administration, accounting, law, etc. Major corporations, educators, and government can work together to help.

6. Don't waste older workers.

They are often skilled and eager to work. If jobs or needs are changing, retraining *while older workers are still employed* is the most sensible approach. Retirees, too, can counsel, train, or even "fill in" with productive work at times of heavy demand. Certainly we can bring about smoother, more flexible approaches to retirement *over time* in an individual's working life. A sudden break with work is not the only way.

What are some of the things that can be done to take advantage of the skills and potential of older workers?

Consider. . .

- continuing education
- retraining
- reassignment
- second careers
- job retention

Instead of dismissal because of changing needs, workers can be given different jobs in other parts of the company, as is being done through Johnson & Johnson's "job bank".

UNION CARBIDE AND THE UNIVERSITIES

Training and Technology

TAT — Training and Technology — is an outstanding industry/education/government collaboration to train unskilled and disadvantaged people in technical trades such as machining, welding, physical testing and mechanical operations. Union Carbide provides the instructor-foremen and the industrial setting, the government-owned nuclear plant it operates at Oak Ridge, Tennessee. Oak Ridge Associated Universities handles administration, research, and community relations (including placement). The federal government funds the program through CETA. Trainees enter the plant gates at the same time (and with the same badges) as other workers. They spend 40 hours a week working with advanced production equipment, and studying math, science, and blueprint reading. Standards are high. Graduates (3,000 so far) acquire good "work habits" as well as marketable skills. Placement has been 96 percent at an average (1975-76) of $5.59 per hour. Union Carbide has hired one-third of the graduates and sixty other employers have hired the rest. Considering the average wage earned by TAT graduates ($7,509 for the '72-'73 class) and their employment rate (90%), the rate of return to the individuals is 200 percent, to the federal government 21-26 percent (considering costs and taxes paid).

- flexible retirement

Gradual shifts, over time, to less stressful work, lateral transfers, shifts to 4-day or 3-day work weeks, may be better than working full-time right up to an abrupt layoff date at age 65 or 70.

- "recall" work force

A pool of experienced, retired people, who can come in full or part-time for special tasks or to meet peak work loads.

- job-sharing
- work as trainers, counselors, "job" specialists

MATCHING JOBS AND PEOPLE

An Account Representative at the U.S. Employment Service?

Why not? Let one person handle a block of employers — an assigned "client" list. Familiarity, continuity, a closer understanding, a better ability to serve — these could be some of the obvious benefits. Better, more personal service is bound to affect employer attitudes toward the Employment Service as a would-be resource. In the end, we might get far better and wider placement of people who need work.

(A corollary: Why not Applicant Officers serving a similar function for job-needing clients of intermediary organizations and placement services? Can you see the advantages of the same kind of knowing, personal service at that end?)

Special Placement Services for the Disadvantaged

The "job list" available at the Employment Service is not enough for the hardest-to-employ youths, nor even for many older workers. They often need someone to actively, imaginatively seek out — or even develop — special job opportunities. New York's Vocational Foundation, which before the city's financial crisis placed 3,000 problem teen-agers a year, and Retirement Jobs Inc. in the San Francisco area are examples. Highly individualized counseling and follow-up seem to make a critical difference in job-retention rates for youth. Older case workers have proven excellent "job developers." To encourage that kind of activity, perhaps pay for such *placement* jobs might be exempt from Social Security earnings restrictions.

ACCOUNT REPRESENTATIVES

Business Interchange with Illinois State Employment Service

In 1973, Chicago Illinois State Employment Service (ISES) interviewers were assigned to work with specific companies. They were trained by personnel in these companies so that they learned first-hand about each company's specific hiring needs. Generally, a close one-to-one relationship was established. The companies gained confidence that appropriate applicants would be sent to them; at the same time, employers gave more job orders to the ISES, and were encouraged to hire more disadvantaged. Prior to this program, ISES had a record of 18 referrals for each hire with these companies. In over two years of operating the Account Representative system, the ratio dropped dramatically to 3 to 1, and then was maintained at that level. More than 2,400 people were hired by Chicago companies using this system, compared to only 83 placements previously; over 90 percent of these hires were minorities. Referrals jumped almost five times and placements 30 times.

Alternatives to Full-time Work

Most jobs are designed for full-time, prime-age workers on a somewhat rigid schedule.

Does it have to be this way? Are there different arrangements in practice?

Many retail stores, insurance companies, and manufacturers make use of *stable, regular* part-time workers.

Which groups will benefit from alternative or flexible work schedules?

- young people still in school
- older workers
- retirees with income limits
- parents or others with fixed home responsibilities

As mentioned earlier, *job-sharing* and the establishment of a *ready work force* of retirees subject to call during peak load periods might help prevent labor bottlenecks and assure that there would be a large pool of skilled people available even during times of high demand.

MINIMIZING UNEMPLOYMENT DURING RECESSION

Whatever is done to restore demand and output, special attention should be given to cushioning the impact on individuals. The first and hardest hit during a slowdown are the harder-to-employ groups mentioned in this review. What could be done to soften this impact?

Business should consider alternatives to layoffs.

Outright layoffs may be costly in the long run, especially where increased training costs have added to the "capital value" of the work force, where there may be legal arguments over seniority and equal employment rights, and where the search for qualified new employees will be costly.

The government could prepare standby skill-upgrading and training programs.

Beneficiaries would have received unemployment compensation or other support anyway. It could be worth the investment.

Are training and skill development – even subsidized work – preferable to extended unemployment compensation?

As an additional idea, if both labor and management agree, there could be changes in unemployment compensation laws to make work sharing easier. These changes might include unemployment compensation payment for single days where work schedules have been cut.

MANAGEMENT OF GOVERNMENT PROGRAMS

CETA was designed to integrate various existing manpower programs and to better gear services to local labor conditions. It worked well in many cases. But there have been difficulties:

- The recession of 1974-75 resulted in funds intended to give disadvantaged groups public-service jobs being used to avert layoffs of policemen, firemen and other city workers.

- Federal supervision and control over local activities have often been lax.

- The U.S. Employment Service and local CETA projects do not always mesh well. There is rivalry. In many cases offices don't even share job-bank information.

Better federal direction, incentives for involving the private sector, and clear objectives (for *kind* of unemployment, special groups, etc.) could help. Can that be achieved?

Here are some of CED's suggestions:

Integrate ES and CETA operations through the Labor Department right down to local offices.

Foster community involvement.

Develop specific co-op programs between ES and CETA.

Define functions:
ES — job referral and placement
CETA — employability development of the harder-to-employ

Anti-unemployment measures should aim at either *cyclical* or *structural* unemployment problems.

A stricter time-limit on the duration of public-service "emergency" jobs.

A STAKE IN EACH OTHER

In the long run we need a situation in which those now hardest to employ recognize that they have a stake in getting and keeping jobs, and where the employers recognize they have a stake in such people getting jobs. Such changes in the structure of the job market will be difficult. They are also necessary.

One of CED's major policy recommendations is to let people know which ideas are working and what the options are, to open minds to practical ways of solving persistent unemployment problems. This is the purpose of this review.

APPENDIX S

THE PENNSYLVANIA STATE UNIVERSITY
COLLEGE OF EDUCATION
Division of Occupational and Vocational Studies
RACKLEY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

April 23, 1979

Dear Educator:

Enclosed is a questionnaire for YOU to tell us what YOU want in Special Needs in-service programs.

A most valid and consistent complaint by teachers is that in-service programs are designed by non-teachers, covering subjects often of no relevance to actual teaching situations. This short procedure can address that complaint.

The Pennsylvania State University, Division of Occupational and Vocational Studies has been funded through the Pennsylvania State Department of Education to provide Centre Region Special Needs in-service teacher training programs. The purpose of the enclosed survey is to obtain baseline information concerning competencies needed in working with special needs students.

Your participation in this survey is extremely important in planning the most effective in-service programs for you. Your survey form has been carefully coded so as to preserve your anonymity; we plan to use the coding to conduct a follow-up request to non-respondents. Please take a few minutes to respond to this survey and return it in the self-addressed, prepaid envelope by May 7, 1979.

Thank you for your cooperation.

Sincerely yours,

L. Jay Thornton
Project Director

Jeannine Fan-Subisak

Jeannine Fan-Subisak
Project Assistant

Enclosures

LJT/JFS/ejk

Home Economics Education — 814-865-5441 Industrial Arts Education — 814-863-0275 Vocational Industrial Education — 814-865-8361

Code: 1-4

THE PENNSYLVANIA STATE UNIVERSITY
Division of Occupational and Vocational Studies
in cooperation with
Pennsylvania State Department of Education

NEEDS ASSESSMENT: IN-SERVICE TRAINING FOR VOCATIONAL EDUCATION OF SPECIAL NEEDS STUDENTS

Special needs students are those students who require additional services and assistance and/or special education and related services to enable them to succeed in regular Vocational Education programs. This population includes handicapped students and those with economic and/or academic disadvantages.

for data processing use

Part I.

Please answer the following questions concerning your own experience in dealing with special needs students.

PERSONAL/PROFESSIONAL BACKGROUND:

Col. 5 1. Sex: _____ 1. Male _____ 2. Female

Col. 6 2. Employment Status: _____ 1. Full-time _____ 2. Part-time

Col. 7 3. Position:

- ___ 1. Administrator
- ___ 2. Vocational Teacher (Includes Vocational/Industrial)
- ___ 3. Special Education Teacher
- ___ 4. Vocational Rehabilitation Personnel
- ___ 5. Vocational Counselor
- ___ 6. Vocational Cooperative Program Coordinator
- ___ 7. Other, please specify ______________________________

Cols. 8-9 4. Teaching Experience: _____ years

Cols. 10-12 5. Approximate number of special needs students that you deal with per year

____

Cols. 13-14 6. Experience with special needs students: _____ years

Col. 15 7. To what extent do you think an in-service training program (for serving special needs students) is needed?

- ___ 1. Very Much
- ___ 2. Much
- ___ 3. Some
- ___ 4. Little
- ___ 5. None

Part II

Listed below are series of professional tasks which have been identified by various special needs studies. Please read each task and decide (1) how important the task appears to you and (2) whether you believe you need more information about the task. Then, circle responses according to your professional opinions.

Professional Task	Degree of Importance of the task					Need for in-service program					*for data processing use*
	Least Important		Important		Extremely Important	No Need		Need		Extreme Need	
	1	2	3	4	5	1	2	3	4	5	
Special Needs Assessment											*Cols.*
1. Develop rationale and program goals according to legislation.	1	2	3	4	5	1	2	3	4	5	*16-17*
2. Administer diagnostic assessment instruments.	1	2	3	4	5	1	2	3	4	5	*18-19*
3. Identify the students' learning difficulties.	1	2	3	4	5	1	2	3	4	5	*20-21*
4. Analyze students' occupational aptitude and interest.	1	2	3	4	5	1	2	3	4	5	*22-23*
5. Analyze local or regional job market and employment trend.	1	2	3	4	5	1	2	3	4	5	*24-25*
6. Establish communication and rapport with potential employers.	1	2	3	4	5	1	2	3	4	5	*26-27*
7. Assist students to establish career goals in relation to occupational requirements.	1	2	3	4	5	1	2	3	4	5	*28-29*
8. Help develop students' work aptitude.	1	2	3	4	5	1	2	3	4	5	*30-31*

Professional Task	Degree of Importance of the task					Need for in-service program					for data processing use
	Least Important		Important		Extremely Important	No Need		Need		Extreme Need	
	1	2	3	4	5	1	2	3	4	5	Cols.
Special Needs Assessment (Continued)											
9. Establish appropriate expectation of program success.	1	2	3	4	5	1	2	3	4	5	32-33
10. Maintain student records.	1	2	3	4	5	1	2	3	4	5	34-35
Special Needs: Planning Process											
11. Establish and use program advisory committee.	1	2	3	4	5	1	2	3	4	5	36-37
12. Identify community and governmental agency resources.	1	2	3	4	5	1	2	3	4	5	38-39
13. Identify supportive and resource personnel.	1	2	3	4	5	1	2	3	4	5	40-41
14. Establish a cooperative team (including special education staff, academic teachers, administrative personnel and vocational educators) in planning process.	1	2	3	4	5	1	2	3	4	5	42-43
15. Identify the basic competencies required in a given occupational field.	1	2	3	4	5	1	2	3	4	5	44-45
16. Establish performance objectives in relation to each occupational competency.	1	2	3	4	5	1	2	3	4	5	46-47

Professional Task	Degree of Importance of the task					Need for in-service program					for data processing use
	Least Important		Important		Extremely Important	No Need		Need		Extreme Need	
	1	2	3	4	5	1	2	3	4	5	Cols.
Special Needs: Planning Process (Continued)											
17. Determine types of instructional materials teaching methods, and learning situations through a cooperative team.	1	2	3	4	5	1	2	3	4	5	48-49
18. Develop an individualized instructional plan to fit each situation.	1	2	3	4	5	1	2	3	4	5	50-51
19. Integrate safety laws and health regulations into instructional plan.	1	2	3	4	5	1	2	3	4	5	52-53
20. Identify the audio-visual aids and equipment to assist students in learning.	1	2	3	4	5	1	2	3	4	5	54-55
Special Needs: Instruction											
21. Modify traditional teaching methods in relation to learning situation.	1	2	3	4	5	1	2	3	4	5	56-57
22. Employ techniques of special instruction when applicable.	1	2	3	4	5	1	2	3	4	5	58-59
23. Manage and modify the tools, equipment, facilities, and conditions for learning environment.	1	2	3	4	5	1	2	3	4	5	60-61

Professional Task	Degree of Importance of the task					Need for in-service program					for data processing use
	Least Important		Important		Extremely Important	No Need		Need		Extreme Need	
	1	2	3	4	5	1	2	3	4	5	Cols.
Special Needs: Instruction (Continued)											
24. Implement individualized instruction.	1	2	3	4	5	1	2	3	4	5	62-63
25. Cooperate with supportive personnel to provide remedial programs.	1	2	3	4	5	1	2	3	4	5	64-65
26. Establish regular students' appropriate attitude to special needs students.	1	2	3	4	5	1	2	3	4	5	66-67
27. Develop system of communication with special needs students and their parents.	1	2	3	4	5	1	2	3	4	5	68-69
28. Determine students' learning motivation.	1	2	3	4	5	1	2	3	4	5	70-71
29. Identify and modify problem behavior in the classroom.	1	2	3	4	5	1	2	3	4	5	72-73
Special Needs: Work Experience and Job Placement											
30. Plan and coordinate on-campus and off-campus work experience programs.	1	2	3	4	5	1	2	3	4	5	74-75
31. Provide career counseling to students for further education or employment.	1	2	3	4	5	1	2	3	4	5	76-77

Professional Task	Degree of Importance of the task					Need for in-service program					
	Least Important 1	2	Important 3	4	Extremely Important 5	No Need 1	2	Need 3	4	Extreme Need 5	*for data processing use*
Special Needs: Work Experience and Job Placement (Continued)											
32. Provide work adjustment counseling.	1	2	3	4	5	1	2	3	4	5	*Cols.* *78-79*
33. Assist employers to work effectively with students.	1	2	3	4	5	1	2	3	4	5	*7-8*
34. Provide job placement services.	1	2	3	4	5	1	2	3	4	5	*9-10*
Special Needs: Evaluation											
35. Evaluate students' performance associated with each instructional objective.	1	2	3	4	5	1	2	3	4	5	*11-12*
36. Identify the strong and weak areas of total programs.	1	2	3	4	5	1	2	3	4	5	*13-14*
37. Obtain follow-up information by conducting survey studies.	1	2	3	4	5	1	2	3	4	5	*15-16*
38. Conduct cost-effectiveness studies of the total program.	1	2	3	4	5	1	2	3	4	5	*17-18*
39. Revise instructional plan based on evaluation results.	1	2	3	4	5	1	2	3	4	5	*19-20*

APPENDIX T

THE PENNSYLVANIA STATE UNIVERSITY
Protection of Human Subjects
Inter-Office Correspondence

Date: April 11, 1979

From: R. L. Kerlin

To: L. J. Thornton

Subject: Research Proposal - "Assessing and Meeting the Inservice Staff Development Needs of Vocational Educators Serving Special Needs Learners"

Your proposal involving the use of human subjects has been approved with the suggestion that the following (or similar wording) be added to the information in your transmittal letter:

Fourth paragraph, third line - "...preserve your anonymity from other persons; we plan to use the coding to conduct a follow-up request to non-respondents."

Please use the attached Form C (Acceptance of Decision) to indicate your acceptance and response to the above recommendation and return to me (316 Willard Building) for distribution.

The extra copies of your protocol are attached.

Attachments

FORM A
Use of Human Subjects

Date March 22, 1979

Transmissal to the Vice President for Research and Graduate Studies, c/o
Protection of Human Subjects, Secretariat, 316 Willard

Investigator or Project Director L. Jay Thornton

Department Occupational and Vocational Studies

Title of Project Assessing and Meeting the Inservice Staff Development Needs of Vocational Educators Serving Special Needs Learners

Sponsor (Agency) Pennsylvania Department of Education

		Yes	No
	The attached proposal involves the use of human subjects............	X	
I.	Biomedical procedures will be used..........................		X
1)	Are procedures established, accepted and necessary to meet the needs of the subject?.........................		
2)	Are procedures potentially harmful?......................		
3)	Has a qualified M.D. participated in planning the project?		
4)	Have provisions been made for emergency medical care?.....		
5)	Will the risks to subjects be outweighed by the potential benefits?.......................................		
6)	Will subjects below the age of 18 years be used?..........		
7)	Will parental or institutional consent be obtained?.......		
8)	Are procedures for obtaining informed consent described?..		
9)	Has a copy of the informed consent document been submitted along with the proposal?......................		
II.	Behavioral procedures that may alter the status of subjects will be used..		X
1)	Are procedures established, accepted, and necessary to meet the needs of the subjects?........................		
2)	Are procedures potentially harmful?......................		
3)	Have provisions been made to correct any harmful or adverse conditions that may arise?.....................		
4)	Will the risks to subjects be outweighed by the potential benefits?.......................................		
5)	Will subjects below the age of 18 years be used?..........		
6)	Will parental or institutional consent be obtained?.......		
7)	Are procedures for obtaining informed consent described?..		
8)	Has a copy of the informed consent document been submitted along with the proposal?.....................		

FORM A
Page 2

	Yes	No
III. Procedures to elicit information (tests, questionnaires, inventories, surveys, observations, etc.) will be used	X	
1) Are the procedures considered established and accepted?...	X	
2) Will the procedures cause any degree of discomfort, harassment, invasion of privacy, or threat to the subject's dignity?..................................		X
3) Will confidentiality of all information be maintained?....	X	
4) Will subjects below the age of 18 years be involved?......		X
5) Will parental or institutional consent be obtained?.......		X
6) Are procedures for obtaining informed consent described?..		X
7) Has a copy of the informed consent document been submitted along with the proposal?.....................		X
8) If informed consent or knowledge of participation is not required, have reasons been documented?................	X	

The project or activity described in the attached information was planned to adhere to the University's policies and the institutional assurance to the Department of Health, Education, and Welfare regarding the use of human subjects. University review and approval is requested.

Faculty members should have their protocol reviewed and approved by the appropriate department head or intercollege director. Graduate students' protocols should be reviewed and approved by their thesis advisor and department head. Biomedical protocols should be signed by a faculty member as investigator or project director.

Investigator/Project Director:

L. Jay Thornton
Name (typed) Signature

113 Rackley Building, University Park, PA. 16802 814-865-8361
Address (Campus) Telephone Number

I have read and approved the protocol for this investigation or study and believe adequate safeguards for protecting the rights of the subjects are incorporated in the procedures.

Thesis Advisor (if applicable) Address (Campus)

Signature Telephone Number

RE Andreyka 119 Rackley Building
Department Head/Intercollege Director Address (Campus)

R.E. Andreyka (814) 865-8361
Signature Telephone Number

FORM D

PROTECTION OF HUMAN SUBJECTS

PROTOCOL (PROCEDURES AND METHODOLOGY)

1) Describe the requirements for a subject population and explain the rationale for using in this population special groups such as prisoners, children, the mentally disabled or groups whose ability to give voluntary informed consent may be in question.

What sex? What ages or other characteristics – minors, college students, adults, senior citizens, institutionalized patients: physically or mentally handicapped. Describe any special selection criteria. Describe the mental, medical, and physical status of the subjects and identify any medical; psychiatric, psychological or other treatment they are receiving.

2) Describe and assess any potential risks – physical, psychological, social, legal, or other – and assess the likelihood and seriousness of such risks. If methods of research create potential risks, describe other methods, if any, that were considered and why they will not be used.

Describe your protocol including background, objectives, plans, personnel, materials, equipment, and references. Where and by whom will the experiment be conducted? Identify by name and position all those who will be involved in the experiments, data gathering, or have access to the raw data.

Where and by whom will questionnaires or instruments be administered? Will there be a follow-up questionnaire or instrument? Identify by name and position all persons administering questionnaires or instruments and those with access to raw data.

Where and how will raw data be stored? Are the instruments coded? If you have a key for coding, what are the security measures and who has access to the key?

What will be the disposition of the raw data, instruments, questionnaires, tape recordings, video tapes, photographs and other material which could be identified with individual subjects upon completion of the investigation or study? If your study is collecting sensitive or personal information in which the subjects are not completely anonymous or in which coding is used – tell how long data will be kept and if and when it will be destroyed.

Be specific about the procedures, methods, experiments, activities, and types of information sought. State frequencies, intensities, durations, types of stimuli or other conditions to be used. Has similar work previously been performed using human subjects? If so, are the procedures generally accepted?

Can you provide the names of experts in the field with whom the committee members could communicate to discuss potential risks or hazards of your protocol?

3) Describe consent procedures to be followed, including how and where informed consent will be obtained. Attach a copy of the format you intend to use in obtaining informed consent.

How will subjects be recruited – volunteers from instructional classes, local population, faculty or staff, bulletin board notices, newspaper ads, etc.? Will subjects be paid or receive credit for participation – how much? Will any motivational devices, coercion, or deception be employed?

Informed consent must normally be written and contain the basic elements of informed consent including that the subject is free to withdraw his consent and to discontinue participation in the project or activity at any time without prejudice. Informed consent must include a "fair" explanation of the procedures in language easily understood by the subjects. Subjects should be informed of the disposition of identifiable data – instruments, video and tape recordings, photographs, etc. – upon completion of the study.

4) Describe procedures (including confidentiality safeguards) for protecting against or minimizing potential risks and an assessment of their likely effectiveness.

Provide your guidelines for safeguards used to protect the subject. Detail your criteria for terminating an experiment or for deciding that a subject can no longer participate in an experimental regimen. List the emergency procedures to be employed in case of an accident. Describe how you will maintain confidentiality of information and protect the rights of privacy of your subjects. Provide copies of any questionnaires or instruments to be completed by the subjects. Describe debriefing procedures.

5) Assess the potential benefits to be gained by the individual subject, as well as benefits which may accrue to society, in general, as a result of the planned work.

6) Discuss the risks and benefits of your investigation or activity. If you are submitting a proposal to DHEW, your application may ask you to analyze the risk-benefit ratio. You may provide your answer to DHEW's question for Item 6.

7) Inform the committee of your background and experience which qualifies you to carry out the proposed experiments. Have you previously used this protocol or procedure? How familiar are you with the equipment, devices, or instruments? Biomedical investigations or activities require a faculty member to be responsible for and supervise all investigations. If you are doing behavioral studies or using questionnaires and surveys and are a graduate student, which faculty member is responsible for and is supervising your work? What is the faculty member's experience with the protocol or procedures?

PROTOCOL

1. The subject population is made up of:
    a. All teachers in 22 Area Vocational-Technical Schools (AVTS's) in the Central Region of Pennsylvania.
    b. All 22 AVTS's directors.
    c. All the comprehensive high school principals.
    d. All comprehensive high school and AVTS's guidance counselors.
    e. All vocational cooperative program coordinators in the AVTS's.

    RATIONALE: The survey participants (population) are those professional educators and support personnel who would be participating in In-Service programs to be designed based upon the results of the survey. In essence, the subjects are identifying their needs for In-Service Teacher Education programs.

2. There is no potential for risk, beyond that normally associated with needs assessment surveys. No participants or schools will be identified in the final report. The only coding of instruments will be for follow-up purposes, subsequent to which the codes will be destroyed. Access to the codes and participant mailing lists is limited to the Project Director and Project Assistant.

    Project Director: L. Jay Thornton
    Project Assistant: J. (Fan) Subisak

    Reports will be based upon professional groupings only, (e.g. guidance counselors, AVTS Teachers, etc.) No names, schools, regions, or other identifiable designations will be used.

Raw data will be stored in the Project Director's and Project Assistant's respective offices until collection is complete. Subsequently, it will be entered, via RJE Terminal, in a computer file (under the project account), the identity of which shall be known only to the Project Director and Assistant. No individual names, schools, regions or other identifiable information will be included in the computer data file.

The data storage file will be terminated upon the completion of the final report. The raw data (instruments) will be retained on file in the Division of Occupational and Vocational Studies. No coding, or other such identifiable information, will be retained.

The information sought is confined to an assessment of needs for in-service teacher education, regarding instruction of special needs students, by and for the participants in the survey. It is a normal and universally accepted practice. (See Phelps, L. Allen, Leadership Training Institutes for The Vocational Education of Handicapped Individuals Needs Assessment Survey, The Pennsylvania State University, Division of Occupational and Vocational Studies, 1978).

3. "Informed consent" is structured into the cover letter requesting participation. No further "informed consent" procedures are required of a survey of adult populations.

The subjects will not be rewarded for participation or sanctioned for refusal.

4. The code for follow-up will be printed on the upper right hand corner of the instrument. It will be physically removed (by cutting) subsequent to data collection. Individualized information is not a part of the survey.

5. The benefits to the participants lie solely with the determination of in-service programs based upon their identification of need. In general, the information obtained will clarify the in-service needs from the perspective of the professionals who are to receive the in-service teacher education.

6. The risks are minimal, as previously described, while the benefits are substantial, in terms of eliciting information about the content of in-service programs by those professionals to whom these programs will be presented.

7. Both the Project Director and Project Assistant have previously used this procedure. The Project Director is Instructor, Division of Occupational and Vocational Studies; Project Coordinator, Leadership Training Institutes for Vocational Education of Handicapped Individuals; Project Coordinator, Follow-up Study, Certificate Programs, Mohawk Valley Community College, Utica, New York; Doctoral Candidate, Vocational Education Research, Division of Occupational and Vocational Studies, The Pennsylvania State University. Project Assistant is Doctoral Candidate and Graduate Assistant in the same Division.

APPENDIX U

THE PENNSYLVANIA STATE UNIVERSITY
COLLEGE OF EDUCATION
Division of Occupational and Vocational Studies
RACKLEY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

May 22, 1979

Dear Educator:

Buried in paperwork, though you may be, your response to the Special Needs In-Service Training Assessment Survey is desperately needed. Please sift through the end-of-the-year stack of non-urgent items and take a few minutes to fill it out and return it.

Rather than send you another questionnaire, in the interest of economy, ecology, and your frustration due to mounds of paper, we ask that you return the first (and only) copy. If it is forever lost, let us know and we will send you another copy.

Your response is vital. The timing may be lousy, but bear up under the strain and help us to plan more effective in-service sessions.

Sincerely,

L. Jay Thornton
Project Director

LJT/ejk

Home Economics Education — 814-865-5441 Industrial Arts Education — 814-863-0275 Vocational Industrial Education — 814-865-8361

APPENDIX V

PROJECT EVALUATION REPORT

AN EVALUATION OF THE PROJECT

"Assessing and Meeting the Inservice Staff Development Needs of Vocational Educators Serving Special Needs Learners"

Pennsylvania State University

Division of Occupational and Vocational Studies

June 1979

PROJECT EVALUATOR

Laurie J. Batchelor
Department of Vocational and Technical Education
University of Illinois
Urbana, Illinois 61801

Introduction

This document reflects the efforts of the evaluator to assess the project, "Assessing and Meeting the Inservice Staff Development Needs of Vocational Educators Serving Special Needs Learners" of the Division of Occupational and Vocational Studies at Pennsylvania State University. The following paragraphs describe the purpose and procedure utilized in the evaluation and several suggestions are given regarding the use of the report in planning and decision making in the last pages of this report.

Purpose

The Division of Occupational and Vocational Studies, to evaluate the objectives of the project, and meet state funding guidelines required a third party external evaluation for the purpose of further improving and refining the project. To meet this purpose, three goals were formulated to guide the evaluator in her task:

1) To satisfy an evaluation requirement.
2) To provide an external perspective of what has been done.
3) To provide recommendations and suggestions for improving current and planned efforts.

Procedure

To accomplish the purpose and achieve the goals, an evaluation approach was designed. The approach involved reviewing project related documents and interviewing students and project personnel. A set of key questions was prepared to guide data collection. From the document review and student surveys, the following report was written, the remaining pages in this report reflect the findings and suggestions for improvement.

SUMMARY

This report is in large constructed of positive and negative conclusions regarding several areas of concern. The more salient positive conclusions pertain to:

1) The positive repoire of project personnel with the participating area-vocational technical schools.
2) The flexibility of the project staff in adapting inservices programs to meet the individual needs of participating AVTS.
3) The positive working relationships between project personnel and the state Bureau of Vocational Education.
4) The development of preservice courses to meet the needs of those involved with special needs learners.

Negative conclusions which imply what ought to be done to align efforts with missions pertain to:

1) The need to establish liaison and various working relationships with other projects and staff within the Division of Occupational and Vocational Studies and the Division of Special Education.
2) The opportunity to accomplish more objectives in concert with a viable advisory committee.
3) The need to recruit high quality graduate students with previous inservice or related

experience in the area of vocational education for special needs learners.

Administration Organization

Key Questions:
1) Is Communication effective (horizontal and vertical) within the administrative structure of the project and the department concerning the project?
2) What is the support for the project by the Department?
3) Have liaisons been developed with other Divisions within the University?

Conclusions	Evidence	Suggested Solutions
1) Communication is effective within the administrative structure of the project and with related staff in the Department. Vertical communication could be improved.	1) Interviews	1) Communicate policies, procedures, activities, etc. relating to the project in writing at all levels.
2) Departmental support could be strengthened to better achieve goals and objectives.	2) a) Interviews b) Observation	2) Staff presentation regarding goals, objectives, proposed activities of project.
3) Support for the project is evident though an official liaison would be beneficial with other departments.	3) Interviews	3) Establish official liaisons with other departments to determine goals and objectives, activities, etc. and to serve in an "advisory" role.

Planning and Evaluation

Key Questions:
1) Do measurable objectives exist for the A) project; B) courses, and C) inservices?
2) Who is involved in planning programs and courses?
3) Are courses, inservices, etc., based upon systematic planning?
4) Are courses, inservices, etc., and the project system atically evaluated?
5) Who is involved in evaluating the courses, inservices and projects?

Conclusions	Evidence	Suggested Solutions
1) Measurable objectives have been developed for both the total project and the courses.	1) A) Project proposal B) Course materials	1) Continue the development of objectives and submit to systematic evaluation to modify and update as needed.
2) Staff involvement in planning courses and inservices is excellent.	2) A) AVTS achnowledgment B) Staff statements	2) Continue to develop courses and inservices with the individual needs of each AVTS in mind.
3) A comprehensive assessment of the inservice staff development needs of personnel in 22 AVTS was completed.	3) A) Staff interviews B) Review of project documents	3) Continue to use results of the needs assessment for future planning purposes.
4) Courses and inservices were systematically evaluated as specified in the project proposal.	4) Review of project documents and data	
5) Student evaluation internal staff evaluation and external evaluation were used in evaluating the three components of the project.	5) A) Staff interviews B) Student interviews C) Third party evalution documents D) Staff documentation	

Resource Utilization

Key Questions: 1) Are personnel (and other resources) of other departments utilized effectively?
2) Are staff members assigned to optimize their talents?

Conclusions	Evidence	Suggested Solutions
1) Project personnel are used effectively though could be utilized with a greater degree of effectiveness with an additional staff person.	1) Judgment of evaluator	1) a) Hire an additional person if fiscal resources permit. Look for someone with previous in-service experience, knowledge in the area of special needs, and an effective delivery style.
2) Staff members are assigned to optimize their talents.	2) Evaluator judgment of personnel resumes and job assignments.	

Personnel

Key Questions:
1) What are the general qualifications of staff (teaching, research and work experience)?
2) How effective are working relationships among project staff?

Conclusions	Evidence	Suggested Solutions
1) The qualifications of the project staff are generally excellent.	1) A) Resumes B) State and national reputations.	1) A) Qualifications of project director are excellent though those of graduate students are poor. Care needs to be taken in the selection process in hiring graduate assistants in matching job qualifications with the job. It is recommended that the project director hire directly rather than having assistants assigned.
2) Working relationships among project staff are effective.	2) Interviews with project staff.	

Instruction

Key Questions:
1) Have goals and objectives of the project been met?
2) What courses are being offered?
3) Which students are now being served?
4) Are support and materials resources available?
5) Are project resources made available to students and participating schools?

Conclusions	Evidence	Suggested Solutions
1) Goals and objectives of the project were met with the exception of testing and refining the University of Pittsburg modules due to modules not being written.	1) A) Staff interviews B) Review of project documents.	1) Revise and modify objectives, as appropriate, to accommodate unexpected changes.
2) Three inservice courses and two graduate courses are now being offered.	2) Staff interviews.	2) Offer inservices to those not previously served during the 1979-80 school year. Continue to offer graduate courses with thought directed toward future implementation of a preservice curriculum directed toward the area of special needs.
3) Too few graduate students and no preservice students are being served?	3) Professional judgment.	3) See Suggested Solution #2.
4) Support and material resources are readily available.	4) A) Staff interviews B) Review of available materials.	

Instruction

Conclusions	Evidence	Suggested Solutions
5) Project materials are available on a limited basis to only those schools participating in scheduled inservices.	5) Review of project literature.	5) Assemble and make available all project resources to schools and students upon request.

STUDENT SURVEY

During the evaluation, the evaluator mailed over fourty (40) surveys to students in two off-campus courses taught by members of the project to determine student reactions and recommendations concerning the courses. Eighteen (18) responses were received over an eight week period. Listed below are the results of the survey.

1) How would you rate the overall course content of the course?

   5 Excellent

   11 Good

   3 Fair

   0 Poor

2) What determined your rating? (random answers)

   "Covered a good amount of information"

   "Application of course content"

   "Instructor, the way he put it across"

   "Presentation, class participation, good planning by instructor, limited size of class"

   "Not enough class time to cover material"

3) What do you feel were the strengths of the course? (random answers)

   "Development of reading tests"

   "Helpful in rating textbooks for readability"

   "Theory was good and applicable in many areas and ways"

   "The presentation of the instructor"

   "Self evaluation"

4) What do you feel were the weaknesses of the course?

"Did not go far enough; should have prepared students to teach reading"

"Most of the material was not explained"

"None"

"There should be a workshop to follow up"

"TMI prevented having one class which caused some crowding in of necessary material which would not have occurred otherwise"

"Interference with course because of TMI"

5) Was the course relevant to your teaching situation?

15 Yes

3 No

If not, why not?

"We were only given bits and pieces of information not enough to really use"

"Not to practical to use with type of student taught"

"I would say moderately. I am a d.o. instructor - few texts for students are available. Geared for T + D teacher as it was intended"

6) How would you rate the instructor? Why?

"Fair, he did the best he could in a short amount of time"

"Exceedingly outstanding, well prepared, articulate, a good listener, unusual for Penn State VOED teachers"

"Good, very knowledgeable on the subject"

"Excellent, well prepared"

"Good, available for help"

7) Did the course provide:

2 too much lecture material

___ too much "hands on" material

14 adequate balance between the two

1 other a) not enough of either

1 no response

8) Do you have any recommendations concerning the course?

"A workshop for the purpose of developing math to incorporate into a vocational program"

"Open to all forms of education, not just VO-ED"

"Should have 30 hrs. instruction for 2 credits"

"I would like to see a follow-up course or feel if course were in two parts would be good"

"Should have more instructor conferences"

9) Comments:

"My experience has been 'too much laboratory problems'"

"Too much analyzing problems" and not enough at the solutions (the how) for teachers to use"

"I thoroughly enjoyed the course and find it was very helpful much more than a lot of the V courses that are required"

"Using material from my classroom captured and retained my interest. Much better than using textbook."

Evaluator Comments and Recommendations - Student Survey

Consistently good evaluations were given for these two off campus courses as well as from the inservices provided the three AVT'S during the 1978-79 school year. The instructor (L. J. Thornton) was rated as exceptional by 90% of the students surveyed and his personality and concern for the individual student had much to do, in the opinion of the students, for the success of the course. Course content proved to be relevant to the needs of those in Dr. Thornton's classes and much individualization of instruction was apparent.

Recommendations include:

1) providing a follow-up course,
2) continuing to be "well prepared, concerned, available for help etc."

SUGGESTED USE OF THIS REPORT

The conclusions and suggested solutions presented in this report are too extensive to address and take action on immediately. Therefore it is necessary to identify those concerns that are viewed as most important to the improvement of the project in light of mission priorities. The following suggestions are offered to aid in prioritizing concerns and formulating a plan of action.

Obtain Reaction and Direction From State Office

Provide copies of the report to Mr. Grubb for review. Meet with him to discuss his reaction to the report. Ask him to provide an indication of priority concerns.

Obtain Feedback From Department Staff

Distribute the report to staff and ask them to give a reaction to the report. Then as a group, formulate a reaction to each negative conclusion which provides information relative to the importance of each as they perceive them.

Formulate a Plan of Action

Hold a project staff meeting to discuss input from the State office and staff input. Based upon this information, formulate a plan for the accomplishment of projected improvements. These discussions and the resulting plans can culminate in the formulation of a set of program management objectives which specify time frame, personnel responsibility and criteria for judging achievement. These objectives can and should be built into the annual reports of the project.